PROGRAM EVALUATION OF BENEFITS FOR SURVIVORS OF VETERANS WITH SERVICE-CONNECTED DISABILITIES

FINAL REPORT

VOLUME IV

EVALUATION OF SERVICE DISABLED VETERANS INSURANCE (SDVI) AND VETERANS' MORTGAGE LIFE INSURANCE (VMLI) PROGRAMS

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Systems Flow, Inc.
Economic Systems, Inc.
Macro International Inc.
Hay Group

Volume IV

Evaluation of Service Disabled Veterans Insurance (SDVI) and Veterans' Mortgage Life Insurance (VMLI) Programs

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1. INTRODUCTION

Overall Study Objective

The purpose of this study is to conduct an objective, third-party determination of the extent to which the VA Dependency and Indemnity Compensation program and four VA-administered insurance programs meet their statutory intent, as well as the expectations of surviving family members, legislators, program officials, and other stakeholders. This part of Volume IV presents findings and recommendations on the Veterans' Mortgage Life Insurance (VMLI) program. The other three VA-administered insurance programs are: Servicemembers' Group Life Insurance (SGLI); Veterans' Group Life Insurance (VGLI); and Service-Disabled Veterans Insurance (SDVI).

The evaluation of the VMLI program assesses the adequacy and effectiveness of the VMLI program. A key focus is on the outcome of how well VMLI makes mortgage life insurance available for qualified veterans and how affordable it is. Another key outcome addressed in this study is how well the expectations of program participants are met. Section 2 of this report discusses appropriate outcomes and outcome measures which set the framework for the study's analysis.

The evaluation was performed pursuant to Contract V101(93)P-1501, Task Order 22. Economic Systems, Inc. performed the technical lead for this study. ORC Macro was responsible for survey design and implementation. The Hay Group provided comparative analysis to the private sector and other non-VA resources. Systems Flow, Inc. was the prime contractor for the task order.

Program Description

VMLI is available to veterans who receive grants for the purchase, construction, or remodeling of specially adapted homes under the authority of Title 38, U.S. Code, chapter 21. As of October 1, 1998, the amount of these grants was raised to $43,000. Grants are available to veterans who are entitled to compensation for service-connected, permanent and total disabilities for one or more of the following conditions:

- Loss or loss of use of both legs.
- Blindness in both eyes plus the loss or loss of use of one leg.
- Loss or loss of use of one leg with residuals of organic disease or injury which affects balance or propulsion.
- Loss or loss of use of one leg together with the loss or loss of use of one upper extremity which affects balance or propulsion.

A few smaller grants ($8,250) are provided to veterans who have experienced the loss of vision or loss of use of both hands. Recipients of these grants are also eligible for VMLI.

The VMLI program started in 1971 to provide mortgage life insurance to severely disabled veterans for whom it would be difficult to obtain mortgage insurance from commercial providers. VMLI has an age and coverage limitation. The program terminates at age 70 and the maximum amount of mortgage coverage is $90,000, which is payable to the mortgage holder only (as opposed to a beneficiary).

The purpose of a VA Specially Adapted Housing (SAH) grant is to help the veteran build or modify a home to accommodate his or her disabilities. There are some restrictions to receiving a SAH grant and thus, indirectly, obtaining VMLI. For a full grant, the title must be held by the veteran or the veteran and spouse only. Formerly, if the title was held with a person other than a spouse, then the veteran was eligible for a grant that is proportionately no greater than the value of his or her share of the title. Section 321 of Public Law 106-419 repealed the proportional limit when the property is co-owned by an eligible veteran and a person other than a spouse.

The initial amount of insurance available under VMLI is the lesser of the following amounts:

- $90,000,
- The amount of the loan balance outstanding on an SAH unit acquired by the veteran prior to August 11, 1971,
- The amount of the original loan when the veteran is granted assistance in securing a specially adapted housing unit,
- The amount of an existing loan when the veteran is granted assistance for remodeling a house owned by the veteran, or
- The amount of the outstanding mortgage on property owned by the veteran that requires no remodeling.

Since VMLI insures unhealthy lives at standard premium rates, it is not self-supporting and requires an annual subsidy. VA covers administrative costs as well as additional premium costs above the standard rate owing to the disability of the insured. The actual premium paid by the veteran is determined by the veteran's age, the outstanding mortgage balance, and the remaining time on the term of the mortgage.

VMLI is terminated under any of the following circumstances:

- The veteran's 70th birthday,
- The mortgage is paid in full,
- The termination of the veteran's ownership of the property securing the loan, or
- The veteran requests cancellation.

History

The Senate Veterans' Affairs Committee report accompanying the VMLI legislation in 1971 identified three primary factors supporting enactment:

- Few, if any, veterans who are so severely disabled to qualify for specially adapted housing grants are able to purchase mortgage insurance in the commercial market.
- The life expectancy of many disabled veterans is short and there is a likelihood they will leave a surviving spouse with substantially reduced income.
- It is unreasonable to expect that survivors should have to use VA life insurance benefits to pay off mortgage obligations.[1]

The legislation established an automatic opportunity for coverage under the program for all recipients of Specially Adapted Housing (SAH) grants. Coverage was initially limited to a maximum of $30,000 and terminated at age 70.[2] The face value of insurance declined with the unpaid mortgage balance (if it was less than $30,000). Premiums charged to the veteran were to be based on the rate for a non-disabled individual with the balance paid by VA.

Current Program Information on VMLI

Currently, there are approximately 3,400 VMLI policies in force with a total face value of $197 million. The current participation rate in the VMLI program is about 65%. In 2000, 205 new policies were issued to catastrophically disabled veterans who received grants for specially adapted housing. The average age of participating veterans is approximately 52 years.

As of June 1999, the average *original* amount of insurance for VMLI takers was $64,909, while the average mortgage amount at the time of VMLI approval was $86,552. About 33% of current takers have the maximum insurance amount of $90,000. Average mortgage amounts have grown at a faster rate than the average VMLI insurance amount. As of June 1999, on average, VMLI covered about 75% of the mortgage amount of VMLI takers compared to 96% in the first five years of the VMLI program (that is, 1971-1976).

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[1] Staff of the Senate Veterans' Affairs Committee expressed strong sentiments regarding the financial independence of surviving spouses during a meeting on October 1, 1999. Staff members indicated that VA programs should be geared to getting surviving spouses financially independent as soon as possible after the veteran's death. Leaving a surviving spouse with a large unpaid mortgage would be inconsistent with this objective.

[2] Public Law 102-568 increased maximum VMLI coverage to $90,000. The age 70 limitation has not been changed since enactment.

VA reported 1999 administrative costs for the VMLI program to be $306,000, whereas, in 1998 these costs were $202,000. The cost estimate, based on the ABC costing method, includes apportionment of all costs such as management, IT and space.

Study Approach

Much of the information needed to assess program outcomes was collected through a telephone survey of representative samples of the study populations – VMLI takers and non-takers. The sample sizes were determined with 90% confidence level so that the results are representative of the study universe population within +/- 4% points.[3] In addition to the surveys, data on insurance program participants and non-participant veterans were compiled from several data sources. Our primary data source in this report is the survey of VMLI takers and non-takers, while the secondary data sources are VA administrative electronic files, IRS individual taxable income data, Statistical Abstract of the United States, and Federal Financial Institutions Examination Council.

Secondary data sources, such as VA administrative electronic files, IRS individual taxable income data, Statistical Abstract of the United States, Current Population Survey, Survey of Income and Program Participation, and Federal Financial Institutions Examination Council were compiled and analyzed. The study team also interviewed key stakeholders to learn about their experiences and assessments of the DIC and insurance programs, including representatives of the Department of Defense, Veterans Service Organizations, and House and Senate Veterans Affairs Committee staffs.

Our approach to this study has been grounded in: a thorough understanding of the legislative intent of the programs being evaluated and interrelated Federal programs, the operational goals, and the constraints and processes of organizations responsible for service delivery; the collection of appropriate and valid data; and rigorous application of sound evaluation methodologies. We have applied a range of empirical methodologies from basic tabulation and simple statistical methods to more advanced methods appropriate to estimating complex relationships.

Parts of the report make a comparison of statistics between two groups of survey respondents. Unless noted otherwise, all the differences found are statistically significant at least at a 95% confidence level. For example, when we say “a significantly larger percentage of VMLI takers (28%) have a child dependent compared to non-takers (18%),” this means the difference is statistically significant at the 95% level.

[3] The standard errors computed for each question and response after the survey revealed that the sample is typically representative of the relevant universe population at 90% confidence level with +/- 4 points or lower margin of error for those questions that all respondents provided answers. If you conducted the same survey 100 times, 90 out of the 100 administrations should yield results within +/- 4% of the current numbers.

Data Collection Procedures

The survey instruments for this evaluation were devised in consultation with VA, the Department of Defense (DoD), and Veterans Service Organizations representing survivors, veterans, and servicemembers. A paper-based pretest with a small set of respondents was carried out to assure that the instruments were effective in obtaining the needed information, that the flow of questions was appropriate, that the questions were clear and understandable, and to determine the burden level. Initial surveys for beneficiaries were reduced in size and coverage. These instruments were programmed using computer-assisted telephone interviewing (CATI) software. Additional testing of the CATI versions of the survey instruments was conducted. This resulted in minor changes to the survey instruments. The VMLI taker and non-taker surveys used in this study are located in Appendix A which includes the tabulations of the survey results**.**

In order to locate potential respondents, current addresses and phone numbers were obtained by using the National Change of Address database, market research databases, the Internet, credit bureau searches, and a private investigator.

ORC Macro conducted telephone interviews from its facility in Plattsburgh, New York. Prior to receiving the first telephone contact, potential participants received an introductory letter on VA letterhead regarding the study. The letter informed members of the sample group of their selection for the survey, briefly described the purpose, and confirmed the legitimacy of the survey. By carrying signatures of the Under Secretary for Benefits and the Assistant Secretary for Planning and Analysis, the letter also conveyed the importance of the study. The letter provided a toll-free telephone number that the intended participants could call to schedule an interview or ask questions regarding the study. Copies of the letters sent to intended participants are included in Appendix B.

VA Administrative Electronic Files on VMLI

VA Philadelphia Insurance Service utilizes a Microsoft Access database application to maintain VMLI master records. The database includes identifying information about the veteran such as name, address, date of birth, and claim number, as well as the original amount of insurance issued and the premium amount. Also on record is information about the veteran's mortgage, including initial balance, duration, interest rate and date of first payment, as well as the name and mailing address of the mortgage company and the account number.

The amount of VMLI coverage at any given time is equal to the lesser of $90,000 or the outstanding mortgage balance. As the veteran makes his or her regular mortgage payments, thereby reducing the mortgage balance, the VMLI insurance coverage will decrease (that is, once the mortgage amount falls below $90,000). The actual amount of insurance at any given time can only be determined by the amortization of the loan. This amortization is done manually by the Philadelphia Insurance Service staff, as the system does not automatically amortize the loan and display it on the master record. For example, the average *original* insurance amount in the VMLI database that the study team received (as of June 1999) was $64,909, but as of September 30, 1999, the average *actual* insurance amount was $57,046.

The data that the study team received from VMLI master records included 13,571 records – 10,093 past and current (as of June 1999) takers as well as 3,478 non-takers of the VMLI program, which together are considered the VMLI eligible population. As Table 1 shows, out of 10,093 records, 3,498 were identified as current (as of June 1999) takers, whereas 4,792 were identified as past takers (participants) who were alive as of June 1999. The VMLI program ended for veterans still living for one of several reasons. VMLI ended for 48% of the past takers' because their mortgage was paid off; 24% sold their house; 16% canceled VMLI on their own; and 12% reached the maximum age of 70.

Table 1. Current and Past VMLI Takers and Non-takers

VMLI Takers & Non-takers	Count
Takers – As of June 1999	
Current Takers	3,498
Past Takers – Living	4,792
Past Takers – Deceased	1,803
Total Number of Takers	10,093
Non-takers – As of June 1999	
Non-takers – Living	3,304
Non-takers – Deceased	174
Total Number of Non-takers	3,478

Source: Philadelphia Insurance Center VMLI Files

A simple random sample was drawn from the 3,498 VMLI current takers and 3,304 past takers who were alive as of June 1999. To assure adequate representation, the files were ordered by available demographic variables (that is, age and approval year) and every n^{th} record was selected on the basis of the appropriate sampling fraction.

Data Management Challenges

VA administrative electronic data files that we received did not include any information on the deceased veteran's disability rating or disability condition. Therefore, it was not possible for the study team to identify a complete list of survivors of veterans with severe or catastrophic service-connected disabilities at the time of death. Instead, we used a combination of self-reporting from the survivor survey and VA administrative electronic files.

The research questions could have been addressed more readily if there had been an unduplicated population of veterans and their survivors that included data about the veteran and survivor and all VA benefits received. However, these programs are administered separately, and their electronic administrative records are not readily linkable.

Separate VA records are typically maintained physically and conceptually by each program area (for example, C&P, Insurance, and Education) and by beneficiary within each program area. The records on DIC, for instance, do not include the insurance or educational benefits received. Likewise, insurance does not include DIC information. VA electronic files provide limited descriptive and demographic information about the beneficiary (veteran, survivor, or dependent); they do not systematically provide information on VA or military benefits received from other programs.

Throughout the study, we had difficulties obtaining key data as well as matching records in one VA data system with another. We discovered that VA's record keeping systems have not used common identifiers that permit electronic linking of insurance and disability compensation records. While the Social Security Number is becoming a common identifier for survivors, it was not always obtained in the past. Consequently, it was not possible to determine the entire benefit package provided to veterans by VA or what insurance packages survivors received. The lack of common linkages also prevented us from directly determining other information critical to the study. The pre-death disability status for deceased veterans is not included in the survivor record nor is the veteran's identifier which would permit access to disability status data from the veteran's record. Instead, other more costly and less precise methods had to be employed. These included using assumptions and sometimes substituting self-reported survey information to compensate for the lack of disability status, benefit, and insurance information from administrative records.

Substantial work was required to synthesize the information into a unified report that addresses issues in a fashion that is meaningful to policymakers. The study is limited to a certain extent by the lack of accessible administrative data. Key variables had to be estimated through survey responses. Survey respondents were not always familiar with the names of VA programs and may not have distinguished one from another. In some cases administrative information (for example, benefits provided) was linked to responses from the survey; however, this was not always possible. That resulted in challenges to the analysis and interpretation of the findings.

Self-reported survey responses on benefit amounts and types of benefits are less precise than administrative records. Many beneficiaries are elderly, which further threatens reporting accuracy of income and other key variables. Validity of self-reported data is a concern in any survey similar to ours. Examples include:

- Service-connected disabilities. A veteran or a survivor may consider some disabilities that are not service-connected for VA benefit purposes to be service-connected. The term "service-connected" was most likely used by many respondents in a looser way than it is understood by VA, Congress, and the professional veteran community. However, we expect that need-for-care reporting in the survey have high validity. We reason that the effects on the caregiving will be similar whether the conditions necessitating care were service-connected or non-service-connected. We should point out, though, that there might be some cases where care was necessary because of a non-service-connected disability, but for purposes of the study and for policymaking, the effects of caregiving will be the same.

- Other VA insurance. Respondents may not remember or know the name of a VA insurance program and report an incorrect response. Although programs were described, survey respondents may not recall whether other insurance was received from VGLI or SDVI.

Although we have relied heavily on self-reported data, we have taken significant steps to crosscheck the self-reported data for accuracy and integrity. Throughout the report, we indicate limitations where appropriate.

We encountered the following specific problems with the VMLI administrative data files:

- Social Security Numbers (SSN) were missing for a substantial proportion of veterans in VA VMLI administrative electronic files. About 90% of the 13,571 records in the VMLI file had missing SSNs. This prevented us from conducting a complete data match of VMLI VA files with the other VA insurance or survivor files before a sample was drawn for the survey. We had to rely on a combination of self-reported data and VA administrative data for information on other VA insurance benefits.
- For the records with missing SSNs, VA VMLI files have a "File Number" identifier starting with the letter C, which is defined as the same file number identifier in VA Compensation and Pension Service electronic files for living veterans. However, some of the C&P data files had a different structure on this variable, which prevented us from conducting a complete match between the VMLI files and C&P files. Moreover, since VMLI files do not identify who the homeowners are (for example, veteran and his/her spouse, veteran and children), it was not possible to match the VMLI records of deceased veterans directly to the survivor's files.
- Demographic information such as educational attainment, marital status, number of dependents, race, gender, and ownership status is not included in the VMLI file. Consistent demographic data across VA insurance programs would greatly enhance the quality of analysis. Although the contract requests data to be sorted by such characteristics as gender and race for data stratification, VA files do not contain some of this demographic information.

Definition of Severely or Catastrophically Disabled Veterans

For the purposes of this study, disabled veterans refer to veterans with service-connected disabilities unless otherwise specified in the text. The contract defines severely disabled veterans as those with a VA Compensation and Pension Service disability rating of 70-100%, whereas catastrophically disabled veterans are defined as those in receipt of special monthly compensation under the provisions of 38 USC 1114 (l) through (s) at the time of death. Minimum disability by this definition may be summarized as follows:

- Loss or loss of use of any two extremities (feet or hands), or
- Blindness with sight of 5/200 or less in both eyes or field of vision less than 5 degrees in both eyes, or
- In need of aid and attendance, or
- Permanently housebound, or
- Rated 100% disabled and having additional disability rated at least 60%.

According to this definition, all VMLI takers and eligible non-takers are identified as catastrophically disabled.

2. PROGRAM OUTCOME, GOAL, AND MEASURE

This section reviews the outcome, goal, and measure for the VMLI program. As with the other VA insurance programs, the fundamental legislative intent is that the program makes insurance available and affordable to veterans, regardless of whether they are healthy or disabled. As mortgage life insurance is normally not readily available or affordable to severely disabled individuals, the VMLI program provides such insurance for veterans who qualify based on their disability status.

The Department of Veterans Affairs has developed a statement of outcome, goal, and measure in draft form and requested that the study team review and make recommendations. VA's draft statement for VMLI is summarized in Table 2.

Table 2. VMLI Program Outcome, Goal, and Measure – VA Draft

Group Served	Outcome	Goal	Measure
Severely disabled veterans with service-connected disabilities who have received a grant for specially adapted housing.	Mortgage life insurance is provided to severely disabled veterans at standard premium rates.	Parity with the average American's ability to purchase mortgage life insurance protection in reasonable amounts, at competitive rates and with comparable policy features.	Compare mortgage protection life insurance available under VMLI to the average American's ability to purchase mortgage insurance in reasonable amounts at competitive rates and with comparable policy features.

Source: Department of Veterans Affairs

Our assessment of the appropriateness of the program's goals is based in part on a review of the VMLI objectives reflected in recent legislative history. The legislative history indicates that Congress intends that VMLI provide substantial protection so that surviving spouses of qualifying disabled veterans will not be forced to sell their homes or use all of their VA insurance benefits to pay the mortgage. Furthermore, the legislative history indicates that the maximum coverage amounts should reflect prevailing home prices and mortgage values. In addition, the premiums paid by the veteran should be consistent with those for commercial products purchased by healthy individuals.

Given this background, we believe the statements in Table 3 should be strengthened to require that the amount of coverage available be consistent with current limits on mortgage loans. We also believe that the outcome should include a statement objecting to a termination age, even though this would be a more exacting standard than is found in commercially available mortgage life insurance products. Life expectancy has increased since VMLI was first enacted in 1971 and retaining a termination for age means that increasing numbers of disabled veterans could outlive the coverage. The result would be that more surviving spouses could be left with unpaid mortgages upon the death of the veteran, which is inconsistent with the legislative intent. Our suggestions are reflected in Table 4.

Table 3. Proposed VMLI Program Outcome, Goal, and Measure

Group Served	Outcome	Goal	Measure
Severely disabled veterans with service-connected disabilities who have received a grant for specially adapted housing.	Severely disabled veterans of any age and with service-connected disabilities can purchase mortgage life insurance in amounts consistent with current mortgage loans and at standard premium rates.	Parity with the average non-disabled American's ability to purchase mortgage life insurance protection at any age in amounts consistent with current limits on mortgage loans and at competitive rates and with comparable policy features.	Compare mortgage protection life insurance available under VMLI to home mortgage loan features of current private insurance market offerings regarding coverage amounts, premiums, and other policy features.

Source: Study Team Analysis

Measurement against the proposed goal can be accomplished in two parts. Part one is a survey of home mortgage amounts reflected by loan closings during the past year. Mortgage data is available on-line at the Federal Financial Institutions Examination Council (FFIEC) web site. Instructions for accessing the data are provided in Section 8, Recommendations. Part two is a survey of major insurance companies to determine mortgage insurance features and premiums. This information can be collected using a uniform survey targeted at the company's product development or marketing department. Contact information for companies marketing life insurance products is available in the A.M. Best Insurance Report series for life and health insurers. Accomplishment of the program goal is determined based on an assessment of whether or not parity has been attained using these measures. Section 4 reports on the study's results for these measures.

In addition, we recommend that overall value to the program participant as rated by the participant should be added as a program outcome along with the appropriate goals and measures. This is not a requirement in the legislation per se, but as program participants are important stakeholders, their views should weigh into the overall evaluation. For measures of outcome, we analyze participation rates, reasons for participation versus non-participation, and response to the customer satisfaction survey. We view a rating of "Satisfied," as opposed to "Neutral" or a lower rating, as the minimum requirement for the goal of customer value and formulate our recommendations accordingly. Sections 5 and 6 address the outcome of value to the program participant and measures.

3. Profile of Participants and Non-Participants

This section reports on the characteristics of VMLI takers and non-takers who responded to the survey. All of the survey data presented throughout the report are current as of the spring 2000 survey date. The "universe" profile of the VMLI program participants and non-participants is included in Appendix C.

A total of 362 VMLI takers and 376 VMLI non-takers were surveyed. Of the 362 VMLI takers, 18 indicated that they did not have VMLI and therefore could not respond to questions about VMLI. These respondents were dropped from most of the analyses. All veterans who are eligible for VMLI are permanently and totally disabled due to service-connected conditions and therefore identified as catastrophically disabled according to the study definition.

Table 4 below summarizes the profile of the VMLI takers and non-takers. Findings include:

- A typical taker and non-taker have the following characteristics in common: white, married, with dependents, and live with dependents.
- VMLI takers and non-takers differ in the following characteristics: a higher percentage of VMLI takers than VMLI non-takers stay home or in bed due to disabilities, use a wheelchair, have at least some college training or more education, and need assistance performing many basic activities.
- VMLI takers and non-takers reported the same median annual household income range of $70,001-$80,000.
- Data received from IRS indicates that VMLI non-takers, on average, have higher individual taxable income than their VMLI taker counterparts ($26,768 vs. $14,041, respectively).
- VMLI non-takers, on average, are older than current VMLI takers (61 vs. 51, respectively). This difference is not surprising since current VMLI takers have to be under the age of 70 due to the age limitation. It is feasible that VMLI non-takers were over the age of 70 at the time the survey was conducted.
- VMLI non-takers, on average, have a larger number of years with a service-connected disability than VMLI takers (33 vs. 23, respectively).
- Although the majority (50-55%) of both takers and non-takers live with dependents, a significantly larger percentage of VMLI takers (28%) have a dependent child compared to non-takers (18%).

Table 4. Summary of Profile of VMLI Takers and Non-takers

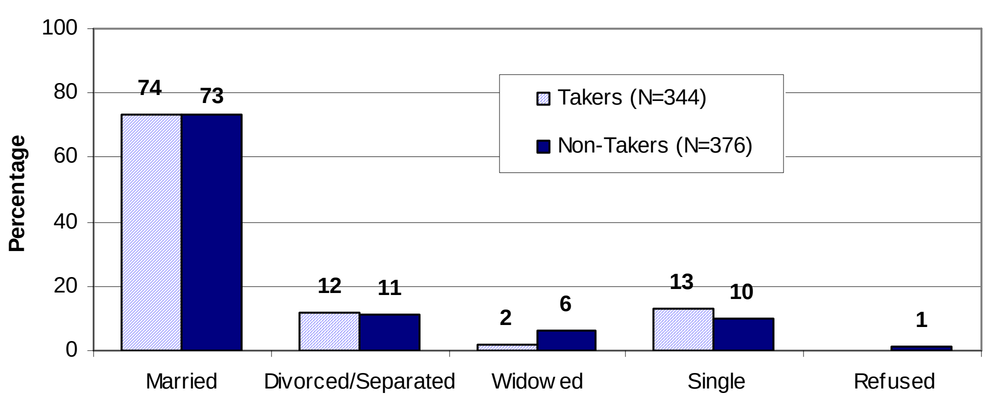
VMLI Takers	Respondent Characteristics	VMLI Non-takers
83%	% using a wheelchair	63%
84%	% White	88%
74%	% married	73%
59%	% with dependents	54%
28%	% with dependent child(ren)	18%
55%	% living with dependents	50%
76%	% with at least some college	67%
42%	% staying at home due to disabilities	33%
47%	% need assistance cooking	35%
48%	% need assistance shopping	39%
41%	% need assistance changing bandages	29%
37%	% need assistance taking medicine	24%
$70,001-$80,000	Median household income range	$70,001-$80,000
52	Median age	62
51	Mean age	61
23	Median number of years with service-connected disability	32
23	Mean number of years with service-connected disability	33
344	Number of survey respondents	376

Source: Q75, Q76a-b, Q82a, Q83-84, Q87-88, Q90-92 of VMLI Survey

Marital Status

Nearly three-fourths (73-74%) of VMLI takers and non-takers are married, as shown in Figure 1. The distribution of marital status is nearly identical for the two groups.

Figure 1. Marital Status of VMLI Takers and Non-takers

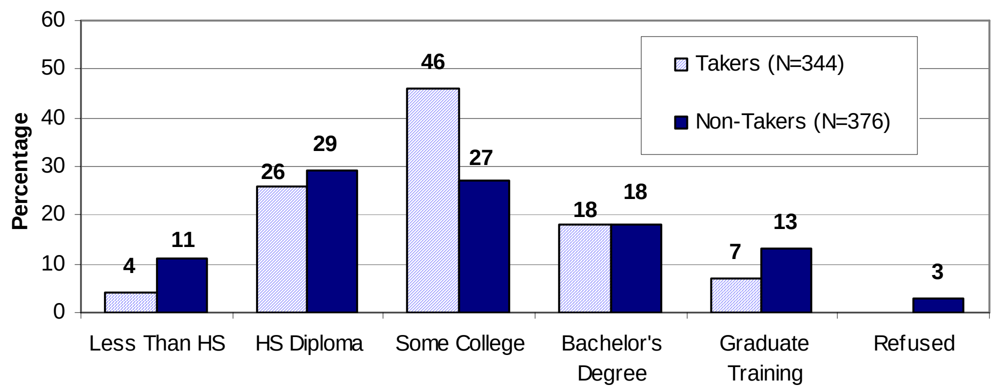


Source: Q75 of VMLI Survey

Educational Attainment

As presented in Figure 2, VMLI takers are more highly educated than non-takers. The percentage of respondents with at least some college training (that is, some college training, bachelor's degree, or graduate training) is significantly higher for VMLI takers (71%) compared to non-takers (58%). However, a significantly larger percentage of non-takers indicated their highest level of education as graduate training (13%) compared to takers (7%).

Figure 2. Highest Level of Education of VMLI Takers and Non-takers

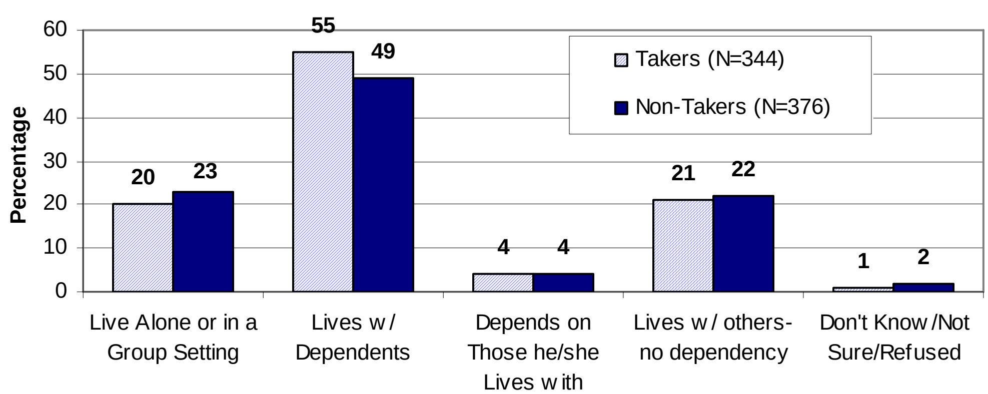


Source: Q87 of VMLI Survey

Living Situation

Figure 3 compares the living situation of VMLI takers and non-takers. The term living situation refers to whether the respondent lives alone, lives with people who are financially dependent on him/her, or depends financially on people who live with him/her. Further, the term "group setting" refers to whether the respondent lives in a nursing home, assisted living facility, and the like. As the figure reveals, most of the VMLI takers (55%) and non-takers (49%) live with their dependents, and there are no statistically significant differences among the living situations for both groups.

Figure 3. Living Situation (Financial Dependence) of VMLI Takers and Non-takers



Source: Q76a of VMLI Survey

Total Household Income

Veterans were asked two consecutive questions about their income: first on the disability compensation payments received from VA and second on the household income (not including payments received from VA). To increase the response rate to the income questions, respondents were also given a choice of providing their income in ranges. A substantial proportion of VMLI takers (20%) and non-takers (38%) did not provide their household income (amount or range). Also, a substantial proportion of VMLI takers (26%) and non-takers (42%) did not report payments received from VA. Given the substantial non-reporting of household income, we cannot provide a straightforward answer to whether total household income differs significantly between VMLI takers and non-takers or to conclude what the total household income range is for VMLI takers and non-takers. We present our findings on the income levels with some reservations about making general conclusions.

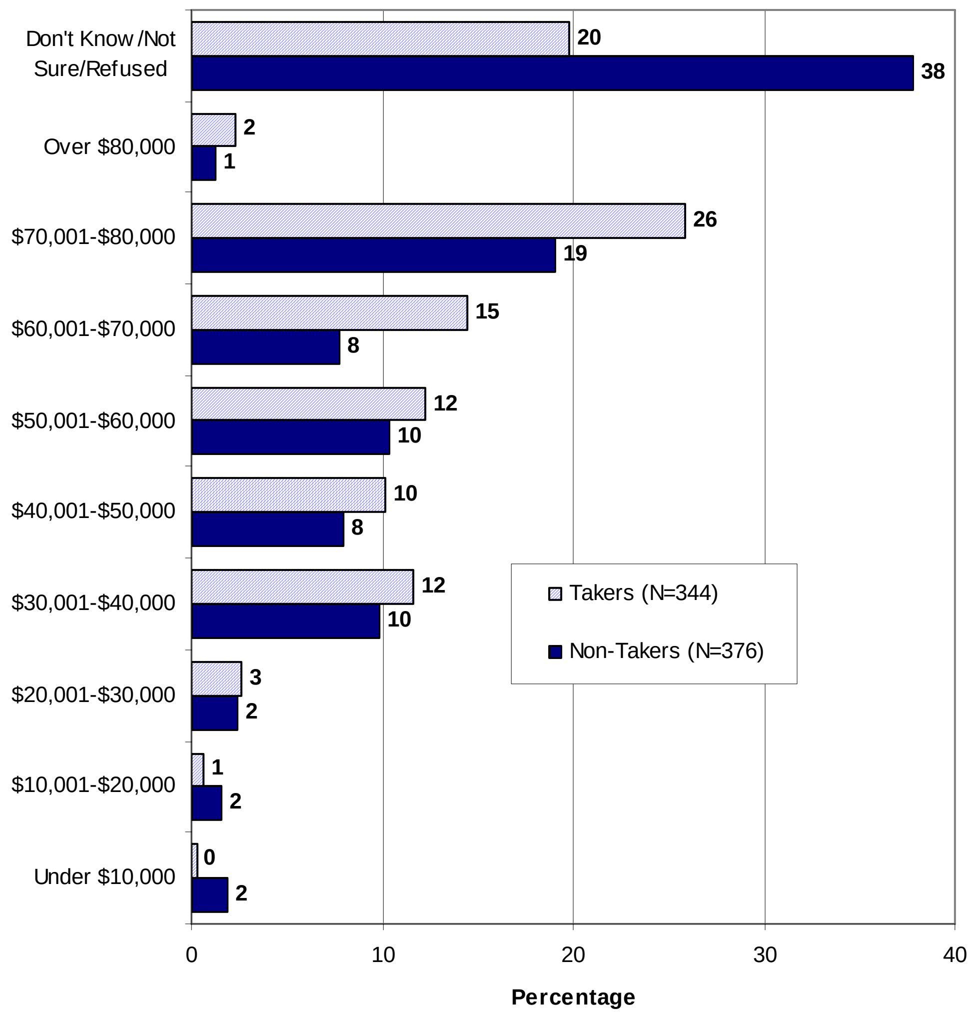
A significantly larger percentage of the VMLI takers (26%) reported 1999 annual total household income (including payments from VA) between $70,001 and $80,000 compared to non-takers (19%), as shown in Figure 4. The median income range for respondents who provided household income range reveals that the 1999 median household income range is the same for VMLI takers and non-takers ($70,001-$80,000).

VMLI eligible veterans receive a significant amount of disability compensation from VA since they are catastrophically disabled. According to our survey tabulation the mean annual disability compensation received from VA is $48,425 and $44,450 for VMLI takers and non-takers, respectively. The median values are $42,000 and $37,962 for VMLI takers and non-takers, respectively.

The study team also received taxable income data for the VMLI taker and non-taker survey respondents from the Internal Revenue Service (IRS). The survey respondent records were matched against IRS *individual* income tax files,[4] and the IRS provided “average” taxable income tables for aggregated variables. While the U.S. Tax Code allows IRS to conduct studies for other government agencies, it prohibits release of individually identifiable information. According to the IRS individual tax files, 1999 average taxable income for VMLI taker survey respondents was $14,041, compared to $26,768 for VMLI non-taker survey-respondents.

[4] The records were not matched against the income reported by these individuals on their 1040s. Instead, the information used from IRS was the data reported to IRS about each taxpayer’s income. These include W2 forms, 1099 forms, and other reports made by employers, banks, brokers, and the like, to the IRS about the individuals in our survey.

Figure 4. Total Annual Household Income of VMLI Takers and Non-takers

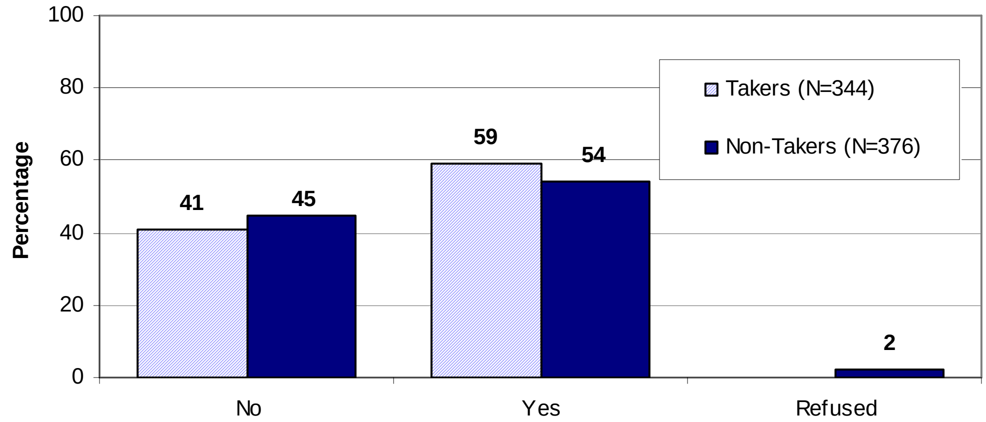


Source: Q91-92 of VMLI Survey

Dependents

The survey responses indicate that the majority of the veteran population has dependents for both VMLI takers and non-takers (59% and 54%, respectively), as shown in Figure 5.

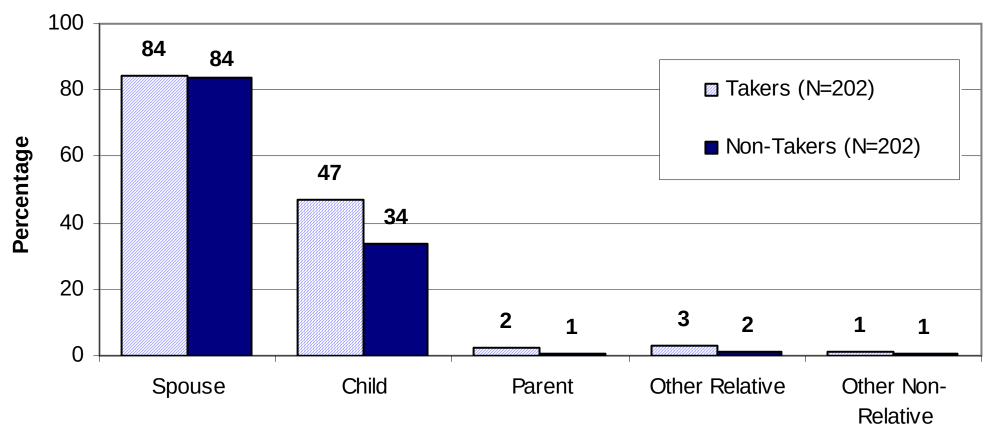
Figure 5. Respondents with Dependents – VMLI Takers and Non-takers



Source: Q76(a-b) of VMLI Survey

Figure 6 presents the relationship of dependents to the survey respondents. Out of the entire VMLI survey population, 28% of VMLI takers and 18% of VMLI non-takers have child dependents. Among those respondents with dependents, a significantly larger percentage of VMLI takers (47%) indicated they have a child dependent compared to VMLI non-takers (34%).

**Figure 6. Relationship of Dependents to Respondents –
VMLI Takers and Non-takers (Among those who indicated they have dependents)**

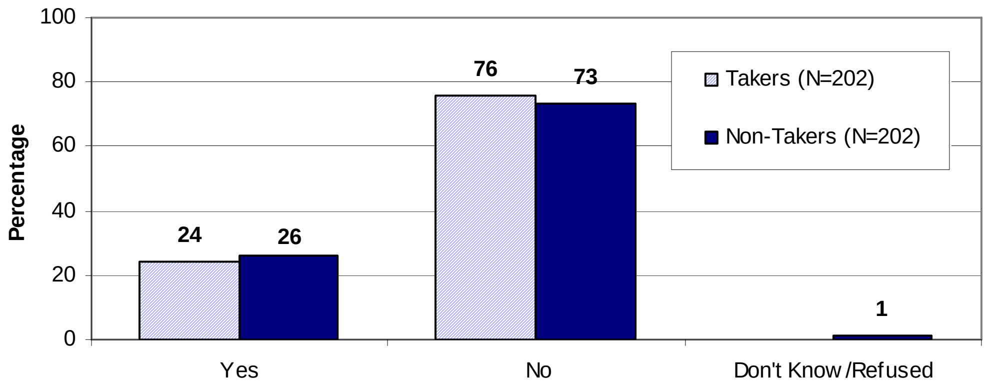


Source: Q77 of VMLI Survey

Health Problems of Dependents

The majority of respondents, both VMLI takers (76%) and non-takers (73%), indicated that their dependents do not have any health problems. Once again, the differences among takers and non-takers are insignificant, as shown in Figure 7.

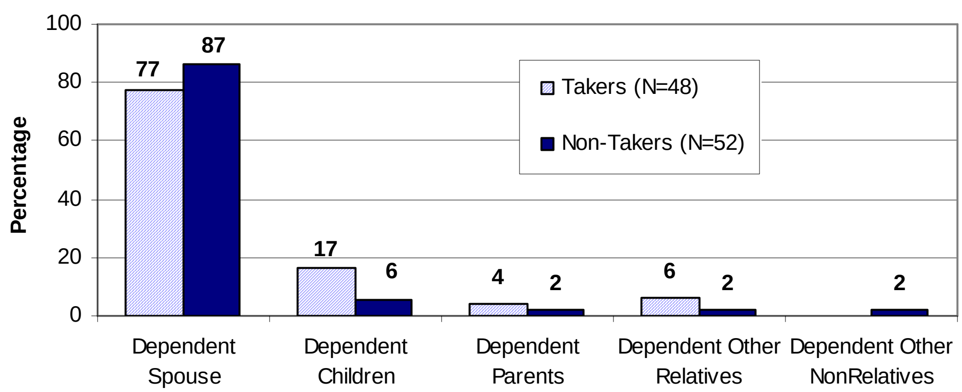
Figure 7. "Does your dependent have health problems?"
VMLI Takers and Non-takers (Among those who indicated they have dependents)



Source: Q78 of VMLI Survey

Of the one-quarter of all VMLI respondents who indicated that they have a dependent with a health problem, a significantly larger percentage of VMLI non-takers (87%) compared to takers (78%) indicated that their spouse also has a health problem, as shown in Figure 8. Alternatively, a significantly larger percentage of VMLI takers (16%) indicated their dependent child(ren) has(have) a health problem compared to 6% of VMLI non-takers.

Figure 8. "Which dependents have health problems?"
(Among those who reported health problems for their dependents)



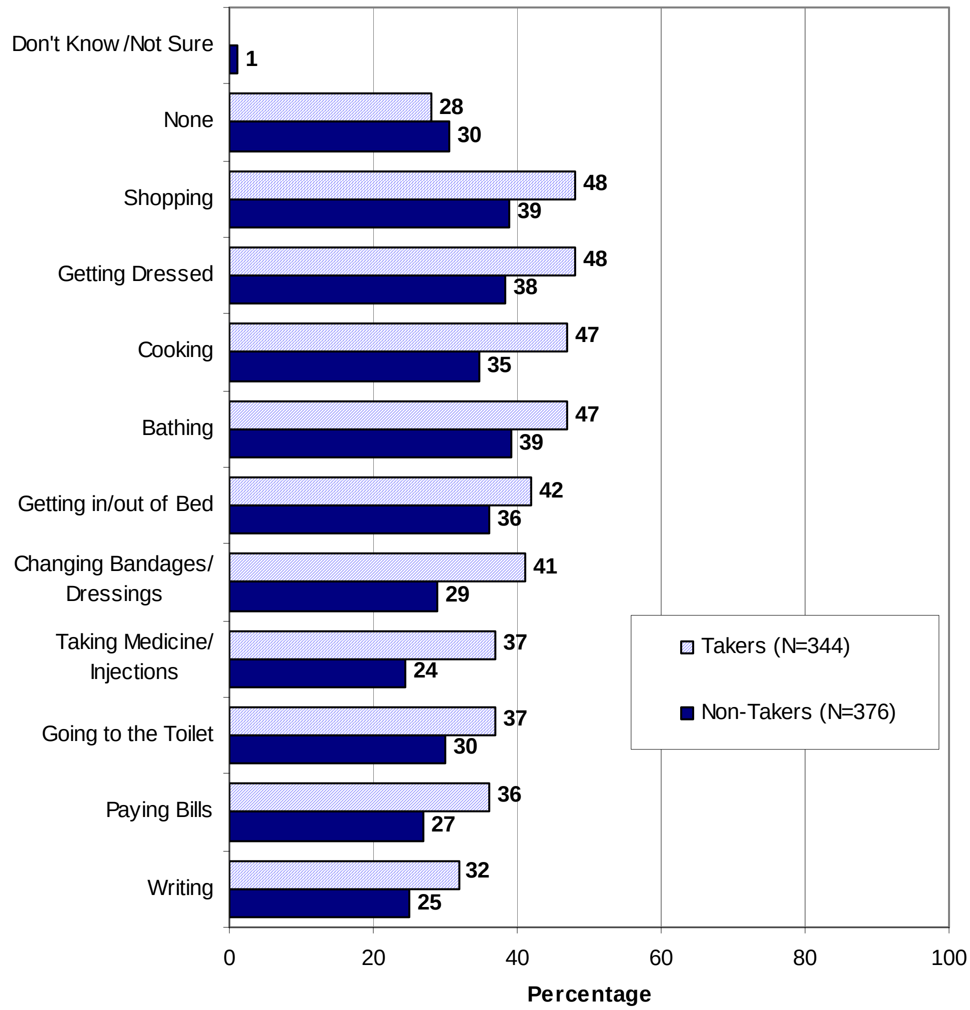
Source: Q78wh of VMLI Survey

Need Assistance

In general, both VMLI takers and non-takers need assistance with the activities of daily life, as shown in Figure 9. However, a significantly larger percentage of VMLI takers compared to non-takers indicated needing assistance with the following activities: shopping (47% vs. 39%); getting dressed (47% vs. 38%); cooking (46% vs. 35%);

bathing (46% vs. 39%); changing bandages/dressings (40% vs. 29%); and taking medicine/injections (36% vs. 24%).

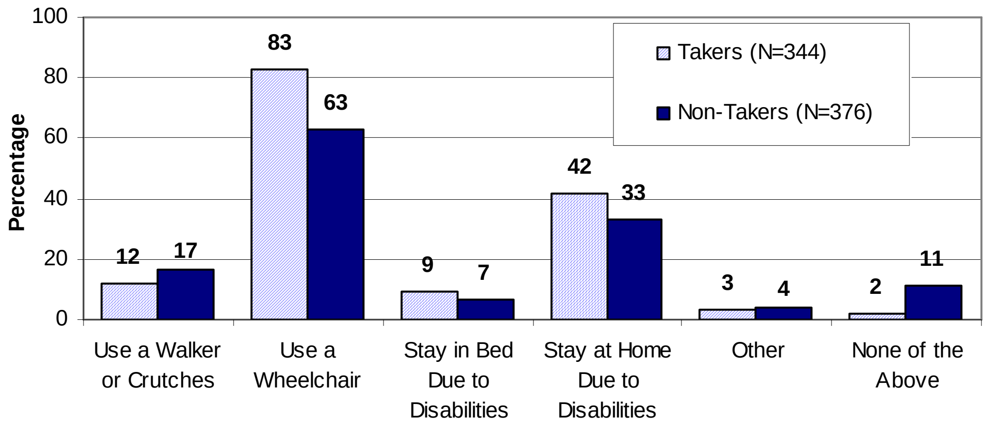
Figure 9. Need Assistance with the Following Activities VMLI Takers and Non-takers



Note: Totals may add up to more than 100% because of multiple responses.
Source: Q83 of VMLI Survey

A significantly larger percentage of VMLI takers indicated that they use a wheelchair (83% for VMLI takers vs. 63% for non-takers) or stay at home because of disabilities (42% for VMLI takers vs. 33% for non-takers), as shown in Figure 10. On average, VMLI takers are much more restricted by their disabilities than VMLI non-takers.

Figure 10. Physical Limitations – VMLI Takers and Non-takers

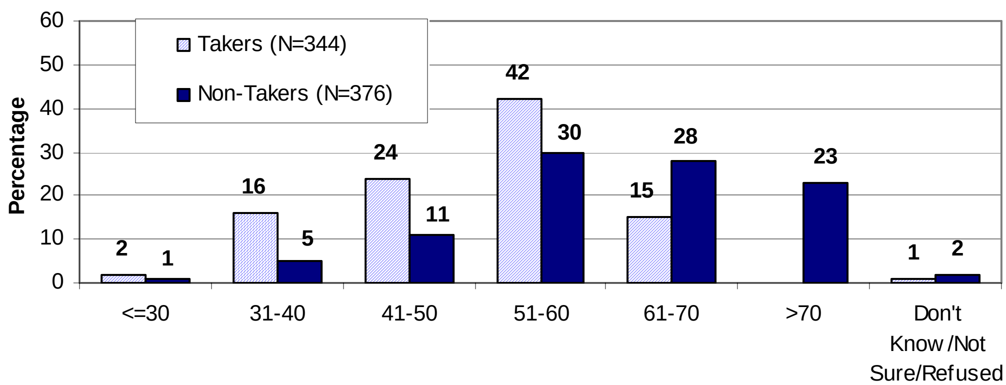


Source: Q84 of VMLI Survey

Age Groups

Figure 11 reflects the current age for survey respondents. By definition, there are no current VMLI takers over the age of 70. (Note that the non-taker group does not include former VMLI takers currently over 70 years old.) On average, the VMLI takers are younger than VMLI non-takers (51 and 61 years old, respectively). The median age of 52 for current VMLI takers and 62 for VMLI non-takers provides the same result of VMLI takers being younger than VMLI non-takers.

Figure 11. Age Groups – VMLI Takers and Non-takers

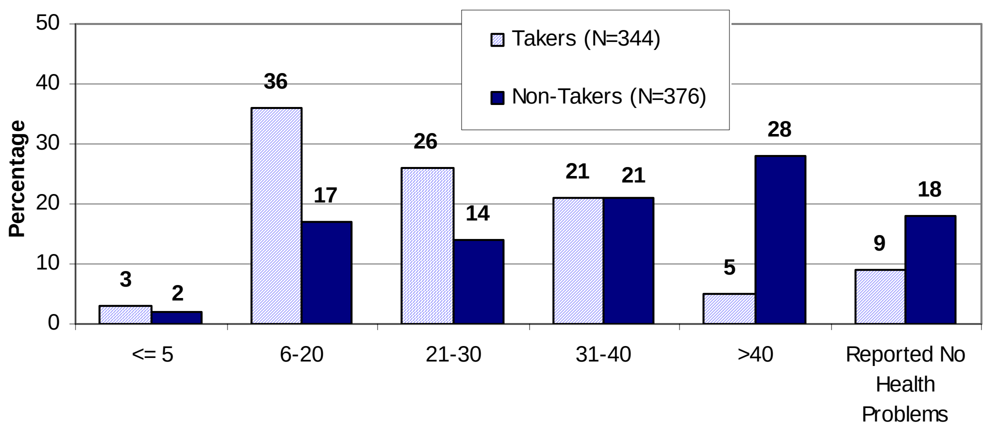


Source: Q88 of VMLI Survey

Number of Years with Service-Connected Disability

There are significant differences in the number of years with service-connected disability among VMLI takers and non-takers, as shown in Figure 12. The average number of years with service-connected disability is 23 years for VMLI takers and 33 years for VMLI non-takers, with the median number of years 23 and 32, respectively.

Figure 12. Number of Years with Disability – VMLI Takers and Non-takers

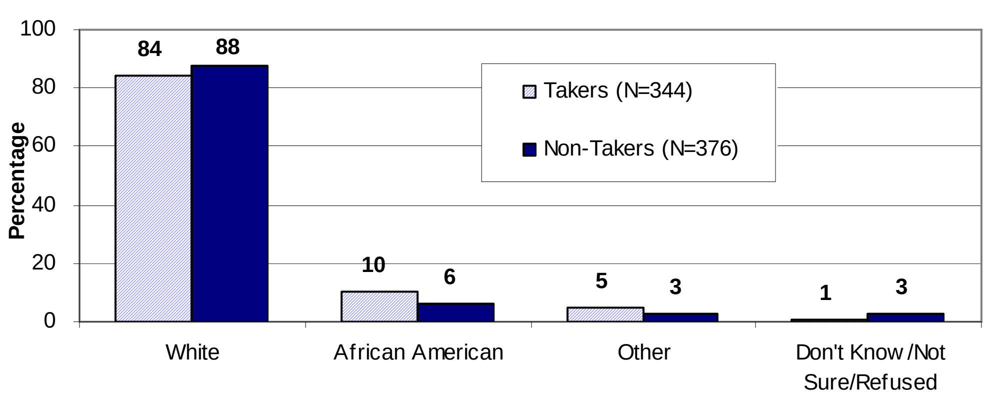


Source: Q82a of VMLI Survey

Race

As Figure 13 reveals, the majority of survey respondents are white (84% for VMLI takers and 88% for non-takers), with no significant differences between takers and non-takers.

Figure 13. Race – VMLI Takers and Non-takers



Source: Q90NE of VMLI Survey

4. AVAILABILITY AND AFFORDABILITY OF INSURANCE

In Section 4 we compare VMLI insurance coverage and premiums to commercial mortgage insurance in the private sector. We also examine the availability of insurance for VMLI eligible veterans from other sources and their future insurance needs.

Comparison of VMLI Features to the Private Sector

Approach

In comparing VMLI to the private sector, we address the following issues:

- Identification of the type, face amount, premium rate, policy features, beneficiary, and source of all life and mortgage insurance coverage for veterans included in the study population.
- Comparison of the types, face amount, premiums, and policy features with insurance coverage held by comparable groups in the general public.

An overview of VMLI appears in Section 1, where the eligibility requirements and program description for VMLI are provided. Here, we discuss mortgage insurance programs available through commercial insurance companies.

We were unable to make comparisons between the actual insurance coverage held by disabled veterans with the insurance held by disabled non-veterans because data on life insurance coverage by disability status of veterans and non-veterans are not available from external data sources such as Current Population Survey, Survey of Income and Program Participation, the Panel Study of Income Dynamics, and the Survey of Consumer Finances. However, we believe that the comparison of VMLI insurance to private sector insurance provides an appropriate outcome measure.

Mortgage life insurance in the private sector is a form of insurance that pays off the outstanding mortgage balance in the event of the death of the insured, who must be a signer of the loan. Another type of mortgage insurance, private mortgage insurance (PMI), indemnifies the insurer in the event of default on the mortgage. The remainder of this discussion will focus on mortgage life insurance since it is the commercial counterpart of VMLI.

Unlike basic life insurance, mortgage life insurance is not part of employer-provided benefit programs. However, mortgage holders could earmark proceeds from an employer-provided life insurance benefit to pay off a mortgage in the event of their death, or they could purchase a term insurance policy in the individual market, intending it to pay off a mortgage in the event of their death.

As a life insurance product, mortgage insurance is term insurance in which the value decreases over time, consistent with the annual decreases in the outstanding balance of a mortgage loan. Mortgage protection policies are available from commercial insurance companies and are generally available to cover a range of mortgage repayment periods, for example, 15, 20, or 25 years. Although the face amount decreases over time, the premium is usually constant. In addition, the premium payment period is often shorter than the maximum period of insurance coverage. For example, the premium payment on a 20-year mortgage protection policy could terminate after 17 years.

Mortgage holders can also purchase normal term life insurance in the commercial market to provide funds to pay off existing mortgage balances in case of death. Term life insurance differs from mortgage protection insurance in that the face value of the policy does not decline over the term of coverage.

We examined numerous sources to compile information about the features and costs of commercially available mortgage life insurance. However, we were unable to locate summary data from industry sources. For example, neither the American Council of Life Insurance, nor LIMRA, International, were able to provide industry data on mortgage life insurance products or sales. Consequently, we contacted a sample of individual life insurance companies selected from A.M. Best.[5] We limited our calls to companies with A ratings or better. Of the 14 companies contacted, seven offer a mortgage life insurance product. Some key design features are summarized below:

- We were able to determine that one of the seven plans does not have a maximum termination age. That is, the coverage continues until the insured dies or pays the mortgage balance. For five of the remaining plans, the maximum issue age (the maximum age at which an individual can be issued coverage) ranged from age 50 to age 80. Thus, individuals as old as age 80 were able to purchase mortgage life insurance.
- The average premium for the five plans from whom we could obtain a quote was \$0.19 per thousand dollars of initial mortgage balance (assuming a 24 year old with a 30 year mortgage). This is significantly higher than the VMLI cost of \$0.11 per \$1,000.

The above comparisons should be viewed cautiously because we noted some significant plan design differences among these products that could affect the premium. For example, the rating factors used in establishing an individual's premium vary from company to company. Some insurers base premiums on the results of a physical examination as well as mortgage balance, smoking category, mortgage interest rate, and location of the property. Other insurers did not require a physical exam. One insurer based the premium on gender, smoking category, and age.

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[5] The Franklin Life Insurance Company, Continental Assurance Company, Guardian Insurance & Annuity Company, Hartford Life and Accident Company, Liberty Life Assurance Company of Boston, Massachusetts Mutual Life Insurance Company, Metropolitan Life Insurance Company, Minnesota Mutual Life Insurance Company, New York Life Insurance Company, Principal Mutual Life Insurance Company, SAFECO Life Insurance Company, State Farm Life Insurance Company, West Coast Life Insurance Company.

Some mortgage insurance policies contain features not found in VMLI. For example, one insurer advertises various riders that can be attached to insure against disability or loss of income. Another is structured to allow policyholders to build up cash value within the policy, and another can be converted to permanent insurance.

We believe some of these additional features are important for allowing individuals to tailor the policy to personal needs that improve the product's marketability. However, these features may be considered to serve purposes outside the scope that Congress intended for VMLI.

Adequacy of VMLI – Amount of Coverage

From the survey on VMLI participants, we tabulated results for the adequacy of VMLI insurance. Questions addressed here include: on what basis do participants decide how much coverage to take; is the maximum amount available for VMLI adequate; what is the right amount of maximum insurance to be offered to takers; and what are the future needs of VMLI takers?

As shown in Table 5, 73% of VMLI takers indicated that their decision of how much coverage to take was based on the maximum amount offered. A sizable percentage of respondents, 21%, indicated that they took the amount needed to provide for their families.

Table 5. Responses to "On what basis did you decide how much VMLI Coverage to take?"

Basis on how much VMLI Coverage to Take	Total (%)
I took the maximum offered	73%
I took the amount needed to provide for my family	21%
I took the maximum that I could afford*	4%
I took the *amount* needed to pay funeral expenses	3%
Don't know/Not sure/Refused	6%
Total Number of Respondents	344

Source: Q41 of VMLI Taker Survey

If they were given a chance to have more VMLI, almost half, 49%, responded that they would increase their policy amount, whereas 35% indicated that their policy would stay the same, as shown in Table 6. Another 16% indicated that they were not sure whether they would increase it or leave it at the same level.

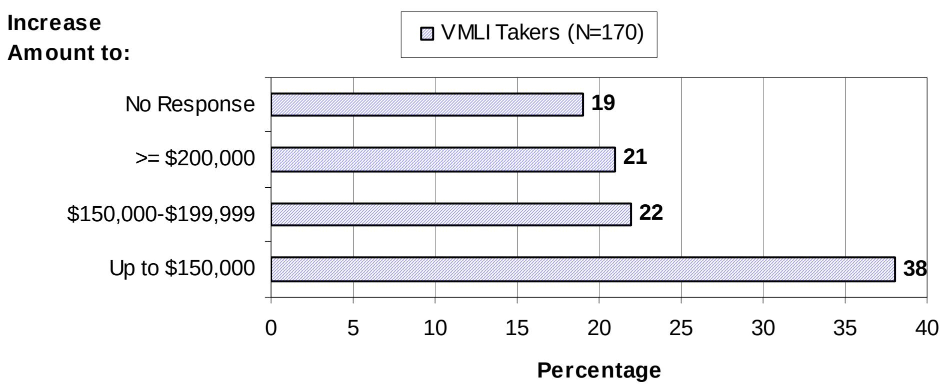
Table 6. Responses to "If you could have taken more VMLI, what is the total policy value that you would take?"

Reason	Total (%)
Policy would stay the same*	35%
Policy would Increase*	49%
Don't know/Not sure*	16%
Total Number of Respondents	344

Source: Q42 of VMLI Taker Survey

Among those who indicated that they would increase their coverage if they were given a choice, 38% indicated they would take a policy amount up to $150,000 compared to 43% of respondents who indicated they would increase their policy to an amount over $150,000, as shown in Figure 14.

Figure 14. Increase Amount in VMLI For Those Who Indicated They Would Increase Policy Amount if Given a Chance



Source: Q42 of VMLI Taker Survey

Maximum Coverage Limit

The current maximum coverage limit was last increased in December 1992, when it was raised from $40,000 to $90,000. The increase was applied to all existing enrollments at the time; many disabled veterans received a significant increase in the amount of their VMLI coverage. With the increase, the VMLI program then covered 91 percent of the total mortgage balances of enrollees. Because there are no provisions for automatic indexing of this limit, each year a smaller percentage of the mortgages of new program participants is covered by the program. Currently, the $90,000 limit covers approximately 75 percent of the face value of mortgages held by VMLI participants.

We examined several measures to use as a basis for establishing a reasonable VMLI coverage limit. The first measure was developed from FFIEC data. FFIEC mortgage origination data are collected nationwide as required by the Home Mortgage Disclosure Act of 1975, as amended, and implemented by the Federal Reserve Board's Regulation

Q. The regulation requires financial institutions to provide disclosure data on newly originated loans including the characteristics of the loan (for example, new home purchase, refinancing, home improvement) and the demographics of the loan applicants (for example, race, income, and location). Data are reported by banks, savings associations, credit unions, and other mortgage lending institutions. Over 7,800 institutions reported on approximately 22 million loans originated during 1999. Complete data are available on the FFIEC web site for 1997, 1998, and 1999.

Table 7 summarizes the average loan amounts for conventional new home purchases for 1997 through 1999 (these data do not include refinancing or home improvement loans).

Table 7. Average Loan Amount for Conventional New Home Purchases by Year

Data Item	1997	1998	1999
Number of Loans	2,521,013	3,007,525	3,209,184
Total Loan Amount	$311,039,192	$389,368,858	$441,010,936
Average Loan Amount	$123,379	$129,465	$137,422
Annual Year-to-Year Increase (%)		4.93%	6.15%
Average Annual Increase 1997-1999 (%)			5.54%

Source: Federal Financial Institutions Examination Council

The average loan amount in 1999 was approximately $137,500. The increase in average loan amount was 4.93% from 1997 to 1998, and 6.15% from 1998 to 1999. The average annual increase in average loan amount was 5.54% over the two-year period of the data.

The second measure we examined was based on a sub-index of the Consumer Price Index for all Urban Consumers (CPI-U). We used the Homeowner's Equivalent Rent Cost because we concluded it was the index that was most compatible with changing housing purchase costs. Table 8 summarizes the change in the index from 1993 through 1999.

Table 8. Consumer Price Index – Homeowner's Equivalent Rent

Measure	Percentage Change
Total Increase (1993-1999)	20.1%
Average Annual Increase (1993-1999)	2.67%

Source: Statistical Abstract of the United States

Based on the CPI, average homeowner costs increased by an average annual rate of 2.67% between 1993 and 1999.

There are important distinctions between these two measures that should be considered. First, FFIEC data are based on new mortgages issued during the year. As home purchasers tend to "buy up" or increase the size or quality of their housing and as the overall cost of housing increases, both factors will be captured in the data. In contrast, the CPI data are intended to reflect cost increases assuming constant "quality." That is, the data are normalized to keep the "market basket" consistent from one measurement period to the next. Thus, the CPI measures the changes in cost for purchasing the same item from one year to the next. Consequently, the CPI data would not capture costs associated with increasing the size or quality of housing.

We used both FFIEC and CPI data as a basis for establishing a new coverage maximum for VMLI. Table 9 summarizes our analysis.

Table 9. Projections of VMLI Maximum Coverage Limit

Method 1 (FFIEC Data)	
Average annual increase in average mortgage amount	5.54%
Cumulative increase from 1992 through 2001	62.4%
Resulting VMLI maximum	$146,200
Method 2 (FFIEC Data)	
Average mortgage amount in 1999	$137,400
Cumulative increase from 1999 through 2001	11.4 %
Resulting VMLI maximum	$153,000
Method 3 (CPI Data)	
Average annual increase in CPI owners equivalent rent index	2.67%
Cumulative increase from 1992 through 2001	27.0%
Resulting VMLI maximum	$114,300

Source: Federal Financial Institutions Examination Council and Statistical Abstract of the United States

We applied the FFIEC data using two methods and obtained relatively consistent results. First, we applied the average annual increase in average mortgage amounts (5.54%) to each year since the last VMLI increase in 1992. We carried the increase through to 2001 since it is unlikely any legislative action would be effective until the end of this year. This would result in an increase of approximately 62.4% to a new VMLI limit of $146,20. Second, we increased the average mortgage amount as reported in the FFIEC data for 1999 ($137,400) by the average annual increase (5.54%) to project its value at the end of 2001. The resulting amount is $153,000.

The third method was to apply the average annual increase in the CPI (2.67%) to the $90,000 VMLI limit through 2001. This produced a revised limit of $114,300.

Our view is that the CPI data do not reflect the full extent of housing cost increases faced by severely disabled veterans purchasing a new or an adapted home. Consequently, the FFIEC data set would be preferred as a basis for establishing a new VMLI coverage maximum. Combining the results from our analysis of all the FFIEC data, $150,000 could be a new higher limit. This limit would cover approximately 96% of the current VMLI mortgage balances outstanding. The limit would cover the total outstanding mortgage balances of 92% of VMLI participants.

Survey results also indicate that a $150,000 coverage amount would be an appropriate limit. Almost half (47%) of the survey respondents indicated they would prefer a coverage limit of $150,000 if they could increase their coverage.

We also recognize that VA Insurance Service has favored legislation to increase the limit to $200,000. A primary justification for this amount is that it would cover nearly 99% of the mortgage balances outstanding. This limit would also cover the total outstanding mortgage balances of 98% of VMLI participants.

The study team projected the impacts on the VMLI subsidy using a model provided by VA Insurance Service. We adapted the model to consider that for each year, the mortgage amounts for new participants will increase by the average increase in mortgages nationwide. These increases will have an impact on the subsidy even though the maximum coverage limit does not increase. The baseline VMLI subsidy projection developed by VA Insurance service does not consider these increases. In Table 10, we present four VMLI subsidy projections:

- VA Insurance service subsidy projection for the current $90,000 limit (Column 1)
- The study team projection following VA assumptions (Column 2) and the percentage differences from VA projection (Column 3)
- The study team projections assuming the current program but annual mortgage growth of 2% and 6% (Column 4 through Column 7) for new program entrants. In these projections, the model assumes that the mortgage amount for each new issue increases by either 2% or 6% each year. The “in force” insurance will be the lesser of the mortgage amount and the $90,000 coverage limit. These projections become the “base case” for estimating subsidy impacts of program changes such as increasing the maximum coverage limit or indexing the maximum coverage limit. We used this approach of assuming mortgage amount increases because we believe it provides a more accurate assessment of future VMLI costs.

Because VA Insurance Service and study team projections for the base case never deviate by more than 0.25% (Column 3), we have high confidence that the model, as adapted, reliably replicates VA projections for similar sets of assumptions.

Table 10. Projection of VMLI Subsidy - Study Team Projections Compared with VA Insurance Service Projection ($90,000 Coverage Maximum)

Year	VA Projection[1]	Study Team Projection[2] (Following VA Assumptions)	Percent Difference	Study Team Projection (2% Mortgage Growth)[2]	Percent Difference from VA Projection	Study Team Projection (6% Mortgage Growth)[2]	Percent Difference from VA Projection
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
2001	$6,357,000	$6,358,000	0.02%	$6,359,000	0.03%	$6,361,000	0.06%
2002	$6,303,000	$6,306,000	0.05%	$6,314,000	0.17%	$6,331,000	0.44%
2003	$6,400,000	$6,405,000	0.08%	$6,425,000	0.39%	$6,466,000	1.03%
2004	$6,513,000	$6,519,000	0.09%	$6,555,000	0.64%	$6,630,000	1.80%
2005	$6,637,000	$6,646,000	0.14%	$6,702,000	0.98%	$6,822,000	2.79%
2006	$6,834,000	$6,845,000	0.16%	$6,927,000	1.36%	$7,104,000	3.95%
2007	$6,954,000	$6,967,000	0.19%	$7,077,000	1.77%	$7,325,000	5.34%
2008	$7,129,000	$7,144,000	0.21%	$7,288,000	2.23%	$7,618,000	6.86%
2009	$7,286,000	$7,303,000	0.23%	$7,486,000	2.74%	$7,911,000	8.58%
2010	$7,405,000	$7,424,000	0.26%	$7,648,000	3.28%	$8,181,000	10.48%

Source: [1] VA Insurance Service Projection; [2] Study Team projection using adaptation of VA Insurance Service model

Table 11 summarizes the 10-year projections for the increase in VA subsidy resulting from a VMLI coverage limit of $150,000 effective in 2002. The projections were developed using the study team model, and the subsidy impacts are based on the baseline projections shown in Table 10 above, assuming 2% (Column 4) and 6% (Column 6) mortgage growth for new program entrants. Projections assume that the increase in the coverage limit would be applied to all existing mortgages held by VMLI participants, as well as to new program entrants. This is consistent with the approach used when the current limit was increased from $40,000. Increasing the coverage limit for existing loans should not pose the administrative problems associated with removing the age 70 termination retrospectively because current mortgage holders are “in the system” and their loan balances and other necessary data are readily available.

Projections do not assume removal of the age 70 policy termination provision. Also, projections assume that the $150,000 coverage limit is not indexed and remains constant for each year of the projection.

Table 11. Increase in VA Subsidy Required by Increasing the VMLI Coverage Limit to $150,000 Effective in 2002 (No Indexing)

Year	2% Mortgage Growth				6% Mortgage Growth			
	Current Subsidy	Subsidy at $150,000 Limit	Increase in Subsidy	Percent Increase	Current Subsidy	Subsidy at $150,000 Limit	Increase in Subsidy	Percent Increase
2002	$6,314,000	$7,501,000	$1,187,000	18.8%	$6,331,000	$7,528,000	$1,197,000	18.9%
2003	$6,425,000	$7,665,000	$1,240,000	19.3%	$6,466,000	$7,731,000	$1,259,000	19.6%
2004	$6,555,000	$7,859,000	$1,304,000	19.9%	$6,630,000	$7,976,000	$1,346,000	20.3%
2005	$6,702,000	$8,085,000	$1,383,000	20.6%	$6,822,000	$8,268,000	$1,446,000	21.2%
2006	$6,927,000	$8,378,000	$1,451,000	20.9%	$7,104,000	$8,640,000	$1,536,000	21.6%
2007	$7,077,000	$8,587,000	$1,510,000	21.3%	$7,325,000	$8,941,000	$1,616,000	22.1%
2008	$7,288,000	$8,885,000	$1,597,000	21.9%	$7,618,000	$9,343,000	$1,725,000	22.6%
2009	$7,486,000	$9,162,000	$1,676,000	22.4%	$7,911,000	$9,735,000	$8,824,000	23.1%
2010	$7,648,000	$9,400,000	$1,752,000	22.9%	$8,181,000	$10,099,000	$1,918,000	23.4%

Source: Study Team Projection Model

Table 12 provides similar information for increasing the VMLI coverage limit to $200,000.

Table 12. Increase in VA Subsidy Required by Increasing the VMLI Coverage Limit to $200,000 Effective in 2002 (No Indexing)

Year	2% Mortgage Growth				6% Mortgage Growth			
	Current Subsidy	Subsidy at $200,000 Limit	Increase in Subsidy	Percent Increase	Current Subsidy	Subsidy at $200,000 Limit	Increase in Subsidy	Percent Increase
2002	$6,314,000	$7,714,000	$1,400,000	22.2%	$6,331,000	$7,748,000	$1,417,000	22.4%
2003	$6,425,000	$7,910,000	$1,485,000	23.1%	$6,466,000	$7,991,000	$1,525,000	23.6%
2004	$6,555,000	$8,138,000	$1,583,000	24.1%	$6,630,000	$8,287,000	$1,657,000	25.0%
2005	$6,702,000	$8,399,000	$1,697,000	25.3%	$6,822,000	$8,636,000	$1,814,000	26.6%
2006	$6,927,000	$8,731,000	$1,804,000	26.0%	$7,104,000	$9,074,000	$1,970,000	27.7%
2007	$7,077,000	$8,973,000	$1,896,000	26.8%	$7,325,000	$9,445,000	$2,120,000	28.9%
2008	$7,288,000	$9,314,000	$2,026,000	27.8%	$7,618,000	$9,933,000	$2,315,000	30.4%
2009	$7,486,000	$9,635,000	$2,149,000	28.7%	$7,911,000	$10,415,000	$2,504,000	31.7%
2010	$7,648,000	$9,921,000	$2,273,000	29.7%	$8,181,000	$10,878,000	$2,697,000	33.0%

Source: Study Team Projection Model

Annual Adjustments in Maximum Coverage Limit

The VMLI coverage maximum lags behind the growth in the annual average mortgage balances because there is no means for adjusting the maximum other than legislative action. From a policy perspective, this limit could be indexed so that it maintains its value relative to current mortgage activity and thereby preserves VMLI's value to severely disabled veteran participants. Although the coverage maximums of other VA insurance programs are not indexed, indexing the VMLI limit would be consistent with the indexing applied to compensation and pension programs that are targeted to severely and catastrophically disabled veterans and their survivors. One rationale is that these groups are the most vulnerable and thus the value of their benefits should be preserved over time. As an indexing method, the annual increase in average mortgage amounts as reported in the FFIEC database can be applied to new program enrollees.

Table 13 summarizes the increased VMLI subsidy required for adding the indexing feature in addition to increasing the VMLI coverage limit to $150,000. The new coverage limit would be effective in 2002; the limit would be first indexed in 2003 and then each year thereafter by either 2% or 6%. The projections also assume that mortgage amounts for new participants will increase by 2% and 6% annually. The indexed limit would apply only to participants first entering the program during that year. Existing mortgages would not be affected by the indexed limit. The rationale is that a one-time increase in the coverage limit applied to all current participants would bring their coverage into line with existing mortgage balances, and the indexing feature would keep the limit consistent with future growth in mortgage balances.

The projections were made using the study team model as adapted from VA Insurance Service model.

Table 13. Increase in VA Subsidy Required by Increasing the VMLI Coverage Limit to $150,000 and Indexing the Coverage Limit

	2% Mortgage Growth Assumption				6% Mortgage Growth Assumption			
Year	Current Subsidy	Subsidy at $150,000 Limit	Increase in Subsidy	Percent Increase	Current Subsidy	Subsidy at $150,000 Limit	Increase in Subsidy	Percent Increase
2002	$6,314,000	$7,501,000	$1,187,000	18.8%	$6,331,000	$7,528,000	$1,197,000	18.9%
2003	$6,425,000	$7,664,000	$1,239,000	19.3%	$6,466,000	$7,725,000	$1,259,000	19.5%
2004	$6,555,000	$7,859,000	$1,304,000	19.9%	$6,630,000	$7,977,000	$1,347,000	20.3%
2005	$6,702,000	$8,090,000	$1,388,000	20.7%	$6,822,000	$8,291,000	$1,469,000	21.5%
2006	$6,927,000	$8,392,000	$1,465,000	21.1%	$7,104,000	$8,701,000	$1,597,000	22.5%
2007	$7,077,000	$8,612,000	$1,535,000	21.7%	$7,325,000	$9,016,000	$1,736,000	23.7%
2008	$7,288,000	$8,926,000	$1,638,000	22.5%	$7,618,000	$9,543,000	$1,925,000	25.3%
2009	$7,486,000	$9,224,000	$1,738,000	23.2%	$7,911,000	$10,042,000	$2,131,000	26.9%
2010	$7,648,000	$9,489,000	$1,841,000	24.1%	$8,181,000	$10,542,000	$2,361,000	28.9%

Source: Study Team Projection Model

Table 14 provides similar information for increasing the VMLI coverage limit to $200,000.

Table 14. Increase in VA Subsidy Required by Increasing the VMLI Coverage Limit to $200,000 and Indexing the Coverage Limit

Year	2% Mortgage Growth Assumption				6% Mortgage Growth Assumption			
	Current Subsidy	Subsidy at $200,000 Limit	Increase in Subsidy	Percent Increase	Current Subsidy	Subsidy at $200,000 Limit	Increase in Subsidy	Percent Increase
2002	$6,314,000	$7,714,000	$1,400,000	22.2%	$6,331,000	$7,748,000	$1,417,000	22.4%
2003	$6,425,000	$7,910,000	$1,484,000	23.1%	$6,466,000	$7,988,000	$1,522,000	23.5%
2004	$6,555,000	$8,138,000	$1,583,000	24.1%	$6,630,000	$8,287,000	$1,657,000	25.0%
2005	$6,702,000	$8,401,000	$1,699,000	25.4%	$6,822,000	$8,647,000	$1,825,000	26.8%
2006	$6,927,000	$8,736,000	$1,809,000	26.1%	$7,104,000	$9,109,000	$2,005,000	28.2%
2007	$7,077,000	$8,984,000	$1,907,000	26.9%	$7,325,000	$9,516,000	$2,191,000	29.9%
2008	$7,288,000	$9,335,000	$2,047,000	28.1%	$7,618,000	$10,057,000	$2,439,000	32.0%
2009	$7,486,000	$9,667,000	$2,181,000	29.1%	$7,911,000	$10,615,000	$2,704,000	34.2%
2010	$7,648,000	$9,966,000	$2,318,000	30.3%	$8,181,000	$11,177,000	$2,996,000	36.6%

Source: Study Team Projection Model

Note that indexing does not appreciably add to the required subsidy beyond the cost of the one-time increase in the coverage limit.

Age 70 Policy Termination Feature

As pointed out in Section 1, the VMLI policy terminates on the veteran's 70th birthday. Comparison to practice in the private sector provides evidence of mortgage life insurance availability for individual policyholders who are over age 70. A few insurance companies, for example, reported policy termination at age 75.

Table 15 illustrates the age distribution of VMLI participants as of December 31, 1999 who are age 60 or above. These 680 participants represent approximately 19% of the total enrolled population.

Some of these disabled veterans will pay off their outstanding mortgage balances prior to reaching age 70 and would not be adversely affected by the limit. However, some number will still have unpaid mortgage balances and will lose mortgage insurance coverage since they will have no reasonable chance of replacing it at any cost through another program. Should they die, survivors will be confronted with paying the mortgage with other estate assets or, if these are insufficient, selling the residence.

Table 15. Attained Age of VMLI Program Participants as of December 31, 1999

Attained Age	Number of VMLI Participants
60	76
61	77
62	66
63	61
64	75
65	54
66	65
67	64
68	55
69	60
70	27
Total	680

Source: VA VMLI Administrative Electronic Files

Although only a relatively small number of veterans are adversely affected each year when they are terminated at age 70, these veterans and their families are the most vulnerable of the program's participants. In addition, as life expectancy increases, even for disabled individuals, the cumulative number of terminated veterans will increase each year. We estimated the cost of removing the age 70 limit assuming that the change was made prospectively only. That is, veterans who were over age 70 and had lost coverage would not be "recovered" back into the VMLI program. We do not recommend that VA make this change on a retrospective basis, primarily because of the administrative issues that would arise, such as locating former participants, the probability that a significant number would be deceased or have paid off their mortgages, and the difficulty in determining the unpaid balances for those with remaining mortgages.

VA Insurance Service has projected the increase in VA subsidy for the VMLI program of removing the age 70 policy termination provision. The projection assumed that the change would be on a prospective basis. Only veterans reaching age 70 after the effective date of the change would be continued in the program. We have reviewed VA's analysis and believe it provides a reliable estimate of the future costs of this initiative. The cost of continuing coverage past age 70 would be shared by the veteran and the VA. The veteran would continue paying the premium for coverage, where the premium is based on the mortality experience of healthy lives. VA subsidy would increase to the extent that the premium did not cover the insurance cost of veterans over age 70.

Table 16 summarizes VA's 10-year projection of the increased subsidy required if the age 70 limit were removed, effective 2001.

Table 16. Increase in VA Subsidy Required by Removing Age 70 Policy Termination

Year	Increase in VMLI Subsidy
2001	$109,000
2002	$400,000
2003	$517,000
2004	$598,000
2005	$653,000
2006	$620,000
2007	$653,000
2008	$615,000
2009	$583,004
2010	$566,000

Source: VA Philadelphia Insurance Center

Comparison of VMLI Premiums to the Private Sector

Comparison of VMLI premiums to private sector premiums is an important outcome measure for this study. Also, in our survey we ask VMLI takers if they consider the premiums they are paying as reasonably priced.

In our efforts to obtain commercial quotes on mortgage life insurance, we found that most life insurance companies no longer offer this product. They report that the demand for it has decreased significantly and that other life insurance products can be readily tailored to meet the needs fulfilled by mortgage life insurance. Many years ago when the VMLI program was enacted, there was not as much as flexibility or options available in the design of life insurance products.

We obtained quotes for a few life insurance mortgage plans in the private sector. We compare a commercial premium cost of $0.50 per $1,000 to a significantly lower VMLI premium cost[6] of $0.30 per $1,000, for a mortgage balance of $90,000, assuming a 43-year old male with a 15-year mortgage. Average age at time of issue for the VMLI takers in our study is 43 with a 15-year mortgage remaining.

As an additional point of comparison at one end of the age range, we obtained an average quote of $0.17 per $1,000 for an initial mortgage balance of $150,000, assuming a 24-year old with a 30-year mortgage. This is significantly higher than the VMLI cost of $0.11 per $1,000. The scarcity of life insurance companies offering the mortgage life insurance product hampered our efforts to obtain additional data point comparisons.

About two-thirds of VMLI takers (69%) believe that the amount they pay for premiums is reasonable as shown in Table 17. The percentage of veterans who believe that the amount they pay for premiums is less than they thought they would have to pay is 9%.

[6] Current VMLI premiums are based on the 1958 mortality tables.

Table 17. Percent Responses to "Do you think that the amount you pay or paid for premiums is a reasonable amount or is it more or less than you thought you would have to pay?"

Response	Total
More	10%
Reasonable	69%
Less	9%
Don't Know/Not Sure	12%
Refused	0%
Total	100%
Total Number of Respondents	344

Source: Q39 of VMLI Taker Survey

Consistent with the responses to the reasonableness of the VMLI premium, about two-thirds (64%) of the respondents indicated that if they were to get the same type and amount of insurance from a private insurance company, they believe they would have to pay more than the amount they pay for the VMLI premiums. This is illustrated in Table 18.

Table 18. Percent Responses to "If you were to get the same type and amount of insurance from a private insurance company, do you think you would have to pay more, pay less, or pay about the same amount?"

Response	Total
More	64%
Same	13%
Less	4%
Don't Know/Not Sure	19%
Refused	0%
Total	100%
Total Number of Respondents	344
Note: Totals may add up over 100% since respondents were allowed to choose more than one reason.	

Source: Q40 of VMLI Taker Survey

Other Insurance Purchased by VMLI Participants and Non-Participants

The importance of VMLI insurance can be judged in the context of how much other insurance, both other VA and other non-VA insurance that veterans eligible for VMLI possess. Other life insurance could be available from a number of sources including individually purchased insurance in the private market, employer-sponsored group life insurance, or dependent life insurance obtained through a spouse's employer.

Other Non-VA Insurance

The following tables provide survey responses to questions about other life insurance. Table 19 shows that over half of the respondents (54% for VMLI takers and 60% for VMLI non-takers) have other life insurance. Of those respondents who do not have any non-VA life insurance, 65% of VMLI takers believe they need life insurance while only 25% of VMLI non-takers believe they do, as indicated in Table 20.

Table 19. Percent Responses to "Do you have any (non-VA) life insurance?"

Response	VMLI Takers	VMLI Non-takers
Yes	54%	60%
No	45%	34%
Don't know/Not sure/Refused	1%	6%
Total Number of Respondents	344	376

Source: Q46 and Q52 of VMLI Survey

Table 20. Percent Responses to "Given your current situation, do you think you need (non-VA) life insurance?" (Among those who do not have any (non-VA) life insurance)

Response	VMLI Takers	VMLI Non-takers
Yes	65%	25%
No	28%	71%
Don't know/Not sure/Refused	7%	4%
Total Number of Respondents	156	129

Source: Q54 of VMLI Survey

Among those respondents who do not have any non-VA life insurance and believe they need non-VA life insurance, VMLI takers indicated needing a significantly larger amount of insurance (median $150,000) compared to VMLI non-takers (median $100,000). This is demonstrated in Table 21.

Table 21. Responses to "How much (non-VA) life insurance do you think would be the right amount for your situation?" (Among those who do not have any (non-VA) life insurance *and* who think they need (non-VA) life insurance)

Statistic	VMLI Takers	VMLI Non-takers
Mean	$187,360	$137,045
Median	$150,000	$100,000
Valid count	89	22
Don't know/Not sure/Refused	12	10
Total Number of Respondents	101	32

Source: Q55 of VMLI Survey

Table 22 provides survey responses indicating the reasons why the veteran has not taken out life insurance. Among those who indicated a particular insurance amount needed for their situation, 60% of VMLI takers have not taken insurance because they were turned down during the application process compared to 41% of VMLI non-takers. The next most frequent reason cited is that the insurance coverage is too expensive.

Table 22. Percent Responses to "Why haven't you taken out life insurance?" (Among those who do not have any (non-VA) life insurance)

Response	VMLI Takers	VMLI Non-takers
Turned down when applied	60%	41%
Too expensive	28%	27%
Just haven't gotten around to it	12%	18%
Other higher priorities	7%	0%
Other	4%	5%
Don't know/Not sure/Refused	6%	23%
Total Number of Respondents	89	22

Source: Q56 of VMLI Survey

Table 23 presents that among those who indicated they were turned down for life insurance when they applied, 87% of VMLI takers indicated the reason for denial was their health status compared to 100% of VMLI non-takers who indicated this reason.

Table 23. Percent Responses to "Why were you turned down for life insurance?" (Among those who were turned down when applied)

Response	VMLI Takers	VMLI Non-takers
Health	87%	100%
Age	4%	0%
Other	2%	0%
Don't know/Not sure/Refused	8%	0%
Total Number of Respondents	53	9

Source: Q55 of VMLI Survey

Table 24 indicates that only 6% of VMLI takers and 11% of VMLI non-takers have other (non-VA) mortgage insurance.

Table 24. Percent Responses to "Do you have any mortgage insurance?"

Response	VMLI Takers	VMLI Non-takers
Yes	6%	11%
No	92%	87%
Don't know/Not sure/Refused	1%	3%
Total Number of Respondents	344	376

Source: Q46 and Q53 of VMLI Survey

Table 25 shows the type of insurance coverage held by the respondents who indicated they have non-VA insurance. Note that the total number of respondents is less than the sum of the total number of respondents who indicated they have other life insurance. This difference results from the survey allowing for multiple responses. The majority of respondents with non-VA insurance have whole life, permanent, or cash value insurance (54% for VMLI takers and 55% for VMLI non-takers).

Table 25. Percent Responses to "What kind of insurance is that?"
(Among those who indicated they have other life or mortgage insurance)

Type of Other Insurance	VMLI Takers	VMLI Non-takers
Whole Life/Permanent/Cash Value Insurance	54%	55%
Term Life Insurance	33%	33%
Mortgage Life Insurance	9%	8%
"Other" Insurance (of a type not listed above)	2%	2%
Don't know/Not sure/Refused	11%	16%
Total Number of Respondents who have other insurance	192	237
Note: Totals may add up to over 100% since respondents were allowed to choose more than one type of other insurance.		

Source: Q58 of VMLI Survey

Table 26 below provides the mean and median non-VA insurance coverage amounts. As the table indicates VMLI non-takers have larger non-VA insurance policy amounts than VMLI takers. For example, both the median term life insurance and whole life/permanent/cash value insurance coverage amounts are $35,000 for VMLI takers versus $50,000 for VMLI non-takers. The number of respondents who provided information about the value of other insurance policies is too few from which to draw any statistical inferences.

Table 26. Mean and Median Amount of Non-VA Insurance Coverage

	VMLI Takers				VMLI Non-takers			
	Mean	Median	Valid Count[7] (N)	Total Count (N)	Mean	Median	Valid Count (N)	Total Count (N)
Term Life Insurance	$68,746	$35,000	57	63	$84,573	$50,000	69	72
Whole Life/ Permanent/Cash Value Insurance	$60,516	$35,000	93	104	$86,817	$50,000	104	125
Mortgage Life Insurance	$64,769	$45,000	13	17	$79,833	$75,000	12	20
Other Insurance	$101,500	$102,500	4	4	$152,500	$150,000	4	5
Don't know/Not sure/Refused (Those With Other Insurance)				21				38
Don't know/Not sure/Refused (Those Without Other Insurance)				4				10
Total Number of Respondents				192				237
Note: Totals counts may add up to more than the total number of responses, since respondents were allowed to choose more than one type of other insurance.								

Source: Q58 and Q59(a-d) of VMLI Survey

Other VA Insurance

From the survey, we also identified several other important facts about coverage with VA life insurance. It is important to note here that the survey sample was not stratified (that is, sorted into subgroups) by other VA insurance; therefore, this section is reflective of the survey respondents only and is not necessarily statistically reflective of the entire VMLI population.

Table 27 shows that 34% of VMLI takers compared to 28% of VMLI non-takers have VGLI. A larger percentage of VMLI takers (45%) have SDVI compared to VMLI non-takers (34%).

Table 27. Other VA Insurance Participants

VA Insurance	VMLI Takers	VMLI Non-takers
VGLI	34%	28%
SDVI	45%	34%
Total Number of Respondents	344	376

Source: Q2 and Q17 of VMLI Survey

[7] Valid Count (N) column indicates the number of respondents who provided an insurance coverage amount which is used in the computation of the mean and median. The Total Count (N) column indicates the total number of respondents who said they have that particular type of other insurance coverage. For example, 57 out of 63 total VMLI takers who indicated they have term life insurance provided the *amount* of term life insurance coverage they have.

As shown in Table 28, among those who indicated that they have other VA insurance, VMLI takers and non-takers both indicated a median SDVI coverage amount of $10,000. This result is somewhat surprising, since one would expect VMLI takers to have also taken out supplemental SDVI coverage. VMLI takers indicated a higher median amount of VGLI coverage ($20,000) compared to non-takers ($10,000).

Table 28. Amount of Other VA Life Insurance Coverage
(Among those who indicated they have other VA insurance)

Statistic	VMLI Takers		VMLI Non-takers	
	Has SDVI	Has VGLI	Has SDVI	Has VGLI
Mean	$15,992	$40,817	$11,296	$27,389
Median	$10,000	$20,000	$10,000	$10,000
Valid Count	136	104	108	89
Don't know/Not sure/Refused	19	13	20	15
Total Number of Respondents	155	117	128	104

Source: Q2 and Q17 of VMLI Survey

Of the VMLI participants sampled, approximately 34% were also enrolled in VGLI ($20,000 median coverage) and 45% were enrolled in SDVI ($10,000 median coverage). For VMLI non-participants, 28% were enrolled in VGLI ($10,000 median coverage) and 34% in SDVI ($10,000 median coverage).

VA and Non-VA Insurance – Overall

In order to obtain a more complete view of life insurance coverage for the veteran respondent, we analyzed the total amount of life insurance that the respondents have. In Table 29 we see that more than half of VMLI takers (56%) and nearly two-thirds of VMLI non-takers (63%) have non-VA life insurance. In Table 30 we see that the total average amount of life insurance, including VMLI, other VA life insurance, and non-VA life insurance, is much higher for the VMLI takers ($116,131) than for the VMLI non-takers ($73,590) who have life insurance from any source. In Table 31 we see the differences widen considerably if we include those who do not have any insurance in the VMLI non-taker group ($116,131 vs. $53,431).

The implication of these results is that participation in the VMLI program has a pronounced effect on increasing the total amount of life insurance coverage for the veteran who is eligible for VMLI. In other words, the VMLI coverage is not replacing or substituting for coverage from other sources. Another implication is that, for VMLI non-takers, their total amount of life insurance is relatively small with a median value of only $10,000. Efforts to increase participation of eligible non-takers are included in the study's recommendations.

Table 29. Percent with VA (including VMLI) and Non-VA Insurance

Respondent Has:	VMLI Takers		VMLI Non-takers	
	Count	Percent	Count	Percent
VA insurance	344	100%	207	55%
Non-VA Insurance	192	56%	237	63%
VA or Non-VA Insurance	344	100%	324	86%
Total Number of Respondents	344	100%	376	100%

Source: Q2, Q17, Q52 of VMLI Survey

Table 30. Amount of Total VA (including VMLI) and Non-VA Life Insurance Coverage (Among those who indicated they have other VA and non-VA insurance)

	VMLI Takers			VMLI Non-takers		
	VA Insurance	Non-VA Insurance	Total Insurance	VA Insurance	Non-VA Insurance	Total Insurance
Mean	$84,752	$69,642	$116,131	$19,455	$94,440	$73,590
Median	$86,826	$40,000	$94,707	$10,000	$50,000	$25,000
Has insurance and provided $ amount	344	155	344	188	174	273
Has insurance but $ amount missing	0	37	0	71	63	51
Does not have insurance	0	152	0	117	139	52
Total Number of Survey Respondents	344	344	344	376	376	376

Source: Q2, Q17, Q59 of VMLI Survey

Table 31. Amount of Total VA and Non-VA Life Insurance Coverage (All respondents – Including those with no insurance)

	VMLI Takers			VMLI Non-takers		
	VA Insurance	Non-VA Insurance	Total Insurance	VA Insurance	Non-VA Insurance	Total Insurance
Mean	$84,752	$31,379	$116,131	$9,728	$43,703	$53,431
Median	$86,826	$0	$94,707	$0	$0	$10,000
Total Number of Survey Respondents	344	344	344	376	376	376

Note: Although more than 50% of VMLI survey respondents indicated that they have non-VA insurance, less than 50% provided a dollar amount causing the median value to be zero. If all of those who indicated having non-VA insurance provided a dollar amount, the median value would have been somewhat above zero.

Source: Q2, Q17, Q59 of VMLI Survey

Future Life Insurance Needs of VMLI Participants and Non-Participants

Survey respondents were also asked about their future life insurance needs. Table 32 shows that a larger percentage of VMLI takers (40%) think they will need more life insurance 10 years from now than VMLI non-takers (23%). Only a small proportion of survey respondents (12% for VMLI takers and 6% for non-takers), believe that their life insurance needs will decline 10 years from now.

Table 32. Percent Responses to "Looking ahead 10 years from now, do you think you will *need* more, less, or about the same amount of life insurance?"

Response	VMLI Takers	VMLI Non-takers
More	40%	23%
Same	38%	52%
Less	12%	6%
Don't know/Not sure/Refused	10%	20%
Total Number of Respondents	344	376

Source: Q69 of VMLI Survey

Of those respondents who indicated that they anticipated needing more life insurance 10 years from now, the median amount of needed insurance indicated by both takers and non-takers is $100,000, as shown in Table 33. However, of those who anticipated more life insurance 10 years from now, only 45% of VMLI takers, and 39% of non-takers said they would purchase additional insurance 10 years from now, as reported in Table 34.

Table 33. Percent Responses to "How much life insurance do you think you will *need*" 10 years from now? (Among those who indicated they need more life insurance)

Statistic	VMLI Takers	VMLI Non-takers
Mean	$181,717	$147,974
Median	$100,000	$100,000
Valid Count	113	72
Don't know/Not sure/Refused	26	13
Total Number of Respondents	139	85

Source: Q70 of VMLI Survey

Table 34. Percent Responses to "Do you think you will *buy* more insurance" 10 years from now? (Among those who indicated they would need more insurance)

Response	VMLI Takers	VMLI Non-takers
Yes	45%	39%
No	38%	38%
Don't know/Not sure/Refused	17%	23%
Total Number of Respondents	139	85

Source: Q71 of VMLI Survey

5. FACTORS RELATING TO PARTICIPATION AND NON-PARTICIPATION

This section presents the factors relating to participating and not participating in the VMLI program. VA Philadelphia Insurance Center reports a participation rate of 65%, which we would judge to indicate that the program is of a high value to the participant. The actual participation rate for eligible veterans is higher than this as it includes severely disabled veterans who received a VA Specially Adapted Housing grant but may not have a mortgage or are over the age of 70.

The choice of whether to participate in VA programs may be influenced by the individual's financial situation, having dependents, age, disability status, and other specific individual characteristics. In addition, VA's own actions can influence participation decisions. VA factors such as customer service, clarity of information, and the ease of filing forms may be factors. Also, some decisions may be based on the availability of alternative private policies or the comparative cost of private insurance. Our survey questions were designed to capture these factors.

We first tabulate results from the survey concerning the reasons for participating and not participating in the VMLI program. Next, we provide results of a more sophisticated statistical analysis, which allows us to take into account the simultaneous influences of different veteran characteristics on participation that the simple tabulations do not.

Reasons for Participation in the VMLI Program

As shown in Table 35, approximately 40% of the survey respondents indicated that covering funeral expenses was the main reason for participating in the VMLI program. Although payments are made directly to the mortgage company upon veteran's death, VMLI takers may feel that having VMLI indirectly helps cover their funeral expenses. About one out of five survey respondents (21%) indicated that the price of the premium was one of the main reasons for program participation.

Other reasons with a high response rate included: unqualified for private sector alternatives due to disability (15%), responsibility to family (15%), and convenience (10%). Most of the respondents who picked "Other" as one of the reasons for taking VMLI indicated in their open-ended responses that since they were disabled and this insurance was offered to them, they took it. It is surprising to see that only 15% of VMLI takers reported that they took VMLI because they were unqualified for private sector alternatives due to disability. In fact, most VMLI takers are likely to be unqualified for private sector coverage, but they may not be aware of it since they have coverage through VA.

Table 35. Main Reasons for Taking VMLI

Reason	VMLI Takers
Want to cover funeral expenses	40%
Price of premium reasonable	21%
Unqualified for private sector alternatives due to disability	15%
Responsibility to my family	15%
Convenient, didn't have to shop around	10%
Private sector alternatives too expensive	3%
Encouraged by VA/Military	2%
Other	11%
Don't know/Not sure	3%
Total Number of Respondents	344
Note: Totals may add up over 100% since respondents were allowed to choose more than one reason.	

Source: Q38 of VMLI Taker Survey

It is evident from the results that VMLI takers believe that the premiums are reasonable. Moreover, their reasoning has more to do with the qualification for insurance due to disability, rather than with price.

Reasons for Non-Participation in the VMLI Program

Some veterans decided not to take VMLI although they were eligible. What were the main reasons for not taking VMLI? Was the decision based on the maximum coverage amount available, the price of the premium or a reason that can be attributed to the administration of the program?

Table 36 shows that a high percentage (28%) of VMLI non-takers indicated that they did not participate in the program because they did not have a mortgage or were over 70 years old when they received the SAH grant, which makes them ineligible for VMLI. Although the VMLI non-taker sample was drawn from a pool of veterans who received the SAH grant, 15% indicated that they did not receive the SAH grant. Another 15% reported that they did not know or were not sure why they didn't take the insurance. It is possible that some veterans may have forgotten that they did receive the SAH grant, especially if the grant amount was small or if it was received many years ago. Thirteen percent reported that they were not aware of the program. This is quite surprising because veterans approved for SAH grants are counseled on obtaining VMLI at four different points during the process. However, given that respondents may have been offered VMLI as long as 30 years ago, it is not surprising that many did not provide a clear response about why they turned down the opportunity to take VMLI insurance.

The next largest reason for not participating is already having another insurance policy and not needing a second one (6%). The price being too expensive is the third most prominent reason for not participating (5%). About 7% of the respondents gave "other" reasons for not participating.

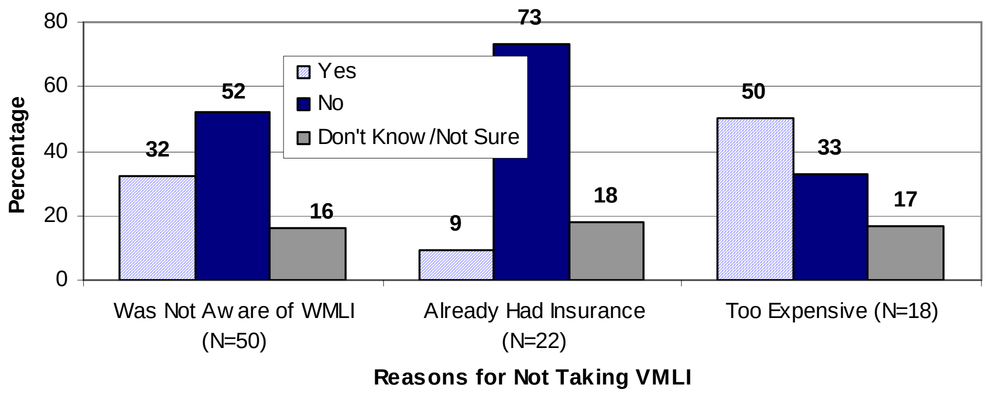
Table 36. Reasons for Not Applying for VMLI

Reason	VMLI Non-takers
Did not have a mortgage when received the SAH grant	28%
Do not remember receiving an SAH grant	15%
Was not aware of the program	13%
Already had insurance/didn't need (more) insurance	6%
Too expensive	5%
Applied but turned down	3%
Did not think met eligibility criteria	2%
Had sufficient savings/investments	2%
Was over 70 years old when received the SAH grant	1%
Premiums not competitive	1%
Maximum face amount too low	1%
Too much paperwork	0%
Did not get forms in on time	0%
Single, no dependents	0%
Do not want insurance from VA/Government	0%
Have dependents, but don't believe in insurance	0%
Don't know/Not sure	15%
Other	7%
Refused	1%
Total Number of Respondents	376
Note: Totals may add up over 100% since respondents were allowed to choose more than one reason.	

Source: Q43-44 and Q46 of VMLI Non-taker Survey

We also asked the respondents whether they would take VMLI if they had a chance to take it now. The results indicate that out of 171 respondents – which excludes those who indicated that they did not think they were eligible for VMLI, 28% answered "Yes," 53% said "No," and 19% said "Don't know/not sure." Out of 50 respondents who indicated that they were not aware of the VMLI program and therefore did not take it, 32% said they would take it if they had the chance to take it today, 52% indicated that they would not take it, and 16% indicated that they were not sure or did not know whether they would take VMLI if offered today. Figure 15 presents the results in order of the top three reasons for not taking VMLI in the past and whether the respondents would take it today, if offered.

Figure 15. Responses to "If you had the chance to take VMLI now, would you take it?" By Reasons for Not Taking VMLI



Source: Question 47 of VMLI Non-taker Survey

Characteristics Relating to Participation and Non-Participation

The descriptive statistics provided in Section 3 (Profile of VMLI Participants and Non-participants) compare the characteristics of takers to those of non-takers, one characteristic at a time. This section presents a more in-depth analysis of characteristics that relate to likelihood of being a taker. The statistical technique, logistic regression, and results are described in detail in Appendix D. Note that the veteran characteristics are as of the survey date, not when a decision was made by the veteran whether to participate in the VMLI program.

The characteristics found to be significant are listed in Table 37 in order of importance. The findings are consistent with the statistics shown in Section 3. For example, in Figure 11, we showed that 16% of VMLI takers compared to 5% of non-takers are in the "31-40" age group, whereas 15% of VMLI takers compared to 41% of non-takers are in the "Over 60" age group. This finding is consistent with Table 37 in that an eligible veteran is more likely to be a taker if he/she is in the "31-40" age group compared to a veteran over 60 years of age. Moreover, the table indicates that a veteran in the "31-40" age group is more likely to be a taker than a veteran who is in the "41-50" age group and a veteran in the "41-50" age group is more likely to be a taker than a veteran who is in the "51-60" age group, and so on. In other words, the age grouping variables are presented in order of descending importance.

In addition, veterans who have debts over $50,000, have VGLI and/or SDVI, stay at home or in bed, or have some college training are more likely to be takers. Also, it is less likely that veterans who also have other mortgage insurance or live alone are takers.

The characteristics tested for likelihood of being a taker, but found to be statistically insignificant, include: assets over $125,000, family income over $50,000, race, marital status, having non-VA life insurance, and having dependents.

Table 37. Veteran Characteristics Predicting Participation in the VMLI Program (in order of importance)

It is ***MORE*** likely that a VMLI eligible veteran is a taker if he/she:	Compared to a VMLI eligible veteran who:
Is under 40 years old	Is over 60 years old
Is 41-50 years old	Is over 60 years old
Is 51-60 years old	Is over 60 years old
Has debts over $50,000	Does not have debts over $50,000
Also has VGLI	Does not have VGLI
Also has SDVI	Does not have SDVI
Stays at home or in bed due to service-connected disabilities	Does not stay home or in bed due to service-connected disabilities
Has some college education	Has less than or more than some college education
It is *LESS* likely that a VMLI eligible veteran is a taker if he/she:	**Compared to a VMLI eligible veteran who:**
Lives alone (no financial dependence on anyone)	Lives with financial dependents or depends on those he/she lives with or lives with others with no financial dependence
Has other mortgage insurance	Does not have other mortgage insurance

Source: VMLI Taker and Non-taker Surveys and Study Team Statistical Analysis

6. EXPECTATIONS OF PARTICIPANTS

In Section 6 we gauge the expectations of VMLI participants on the basis of the study's customer satisfaction survey.

VA customer satisfaction surveys are conducted on an ongoing basis for the insurance programs. In the survey for this study customer satisfaction questions were one component. The intent of the study in this area is to provide an independent assessment of customer satisfaction and to significantly expand the sample size to ensure accurate representation of the total population. We obtained results from over 300 responses on overall satisfaction and somewhat fewer numbers of responses on satisfaction on specific program features or attributes.

The objectives of our analysis for the VMLI program were to:

- Measure the overall satisfaction level of VMLI takers
- Measure the satisfaction level of VMLI takers with specific program attributes such as benefit amount and amount paid for insurance coverage
- Determine which program attributes are the most important in affecting overall customer satisfaction
- Identify areas of improvement that will have the greatest impact on satisfaction.

The takers of VMLI were asked about satisfaction relating to the following:

- Forms for enrolling
- Brochures/written material on coverage and benefits
- VA staff counseling on how much insurance to buy
- Amount of insurance he/she has
- Maximum amount of insurance you can buy
- Amount he/she pays for insurance coverage (that is, premium)
- Helpfulness of VA staff
- Age 70 policy termination
- VMLI program overall

Satisfaction ratings had five levels of gradation from very satisfied (5) to very dissatisfied (1). Questions about satisfaction with VMLI program were posed only to those who are participating in the programs. They are classified as the takers of the insurance programs. Non-takers logically were excluded from this part of the survey. For purposes of analysis, those who answered "not aware of this feature," "don't know," or those who refused to answer the specific satisfaction question were not included in computing mean satisfaction scores.

To analyze the survey responses on customer satisfaction, we relied primarily on the calculation of average ratings and the frequency distribution of the five satisfaction ratings. We also calculated the relative importance of each program attribute to overall satisfaction. Our approach was not to directly ask respondents which attributes contribute most to their overall satisfaction, but to base it on the strength of the statistical correlations between the satisfaction with a given attribute and overall satisfaction. Those attributes with satisfaction that correlate more strongly with overall satisfaction are viewed as more important than attributes with little correlation to overall satisfaction. An attribute can have a low satisfaction score but still correlate highly with overall satisfaction and vice versa. From a program manager's point of view, attributes that have the most potential for improving satisfaction are those with a low satisfaction score but high correlation with overall satisfaction.

Results showed that most respondents (over 70% of those who provided a satisfaction score) were either "satisfied" or "very satisfied" *overall* with the program. We also found that the overall satisfaction was more affected by some aspects of the program than others. In particular, "brochures/written materials," "forms for enrolling," and "premium" were more important in affecting overall satisfaction while "VA staff counseling" and "helpfulness of VA staff" were less important.

Average Satisfaction Scores

Average results are shown in Table 38. Note that not all of the survey respondents provided a satisfaction score for each attribute shown in the table. For example, for "age 70 policy expiration" attribute, out of 344 respondents, only 152 provided a satisfaction score (that is, "very satisfied," "satisfied," "neutral," "dissatisfied," or "very dissatisfied"). The remaining 192 responded "don't know," "refused to answer," or "not aware of this feature" (see Figure 16). The distribution of VMLI satisfaction responses for those who actually gave a satisfaction rating is presented in Figure 17.

As Table 38 indicates, the overall mean satisfaction score for the VMLI program was nearly 4 (3.91), indicating "satisfied" as opposed to "very satisfied" or "neutral." Satisfaction ratings were also relatively good for the program attributes, "forms for enrolling," (4.07) "premium," (3.95) and "brochures/written materials" (3.93).

Table 38. Mean Satisfaction Scores for VMLI Takers

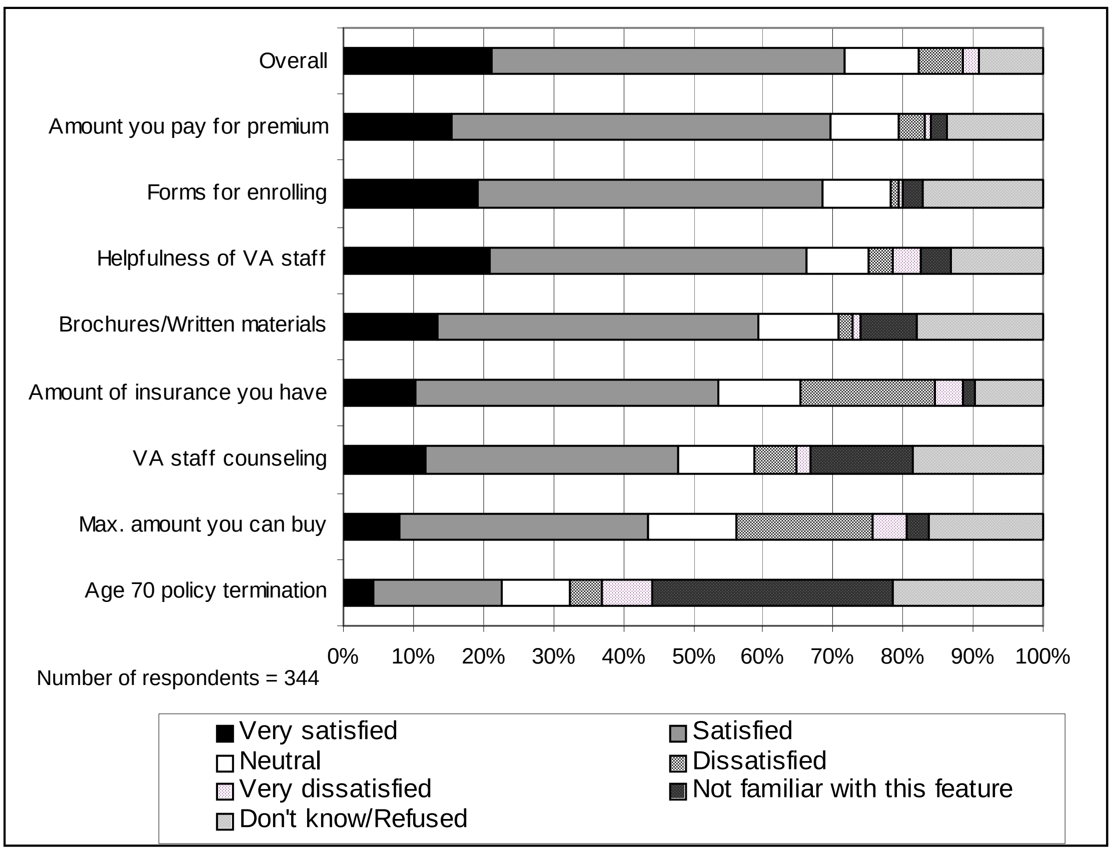
Satisfaction with:	Count	Mean Score
Forms for Enrolling – Q74a	275	4.07
Premium – Q74f	289	3.95
Brochures/Written Material on Coverage and Benefits – Q74b	254	3.93
Helpfulness of VA staff – Q74g	284	3.92
DOD Staff Counseling on How Much Insurance to Buy – Q74c	230	3.74
Amount of Current Insurance Policy – Q74d	305	3.41
Maximum Amount Available– Q74e	277	3.28
Age 70 Expiration – Q74h	152	3.18
VMLI Overall Satisfaction – Q74i	312	3.91

Note: 1=Very Dissatisfied, 2=Dissatisfied, 3=Neutral, 4=Satisfied and 5=Very Satisfied.

Counts shown are less than the total number surveyed, because respondents did not provide responses to all of the satisfaction questions or they indicated that they were "not aware of this feature."

Source: VMLI Taker Survey

Figure 16. Distribution of Satisfaction Scores by Attributes (For all VMLI Taker Survey Respondents)

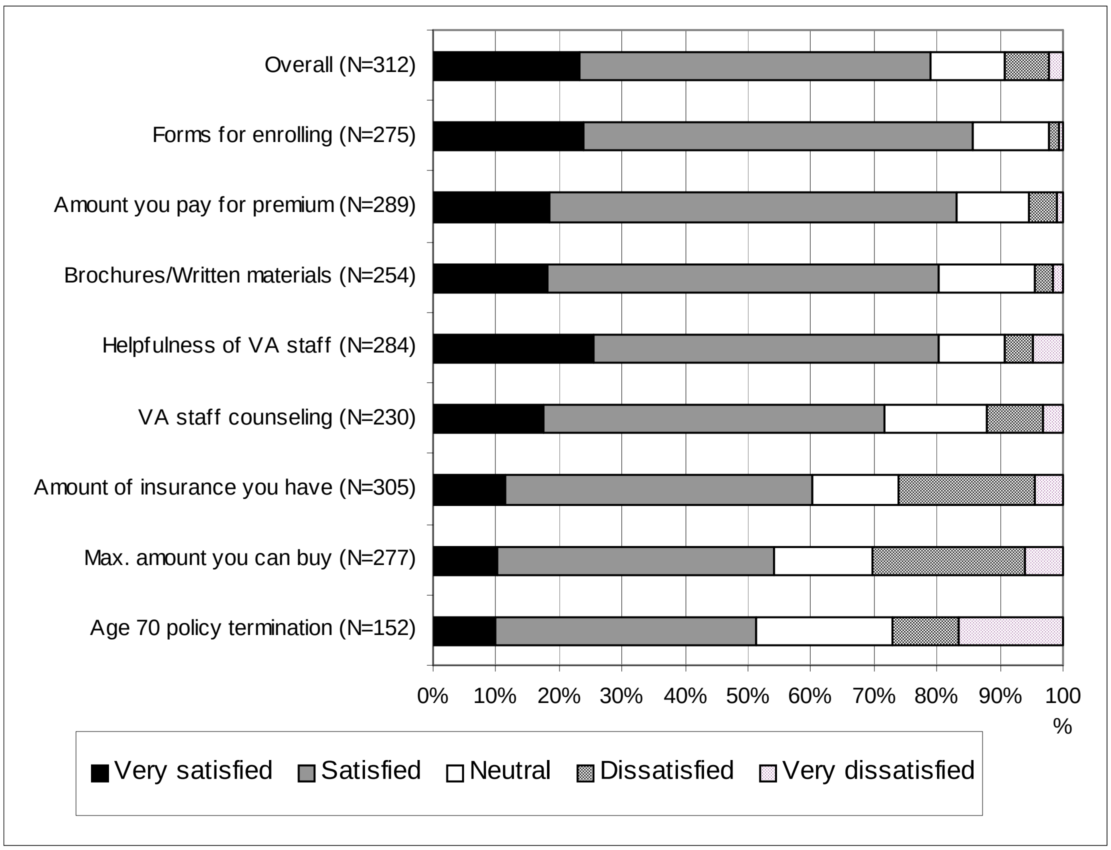


Source: Q74(a-i) in VMLI Taker Survey

For some attributes, though, the respondents on the whole were not "satisfied." As shown in Table 38, the attribute scoring lowest was the "VMLI age 70 policy expiration" feature (3.18). About half of the respondents were not satisfied with this feature (Figure 17). This result, combined with the result that a relatively high percentage of respondents (about 30%) were not familiar with this attribute (Figure 16), indicates that more management or policy attention should be given to this attribute.

Also, as shown in Table 38 satisfaction was comparatively low with the "maximum amount of VMLI you can buy" (3.28) and with the "amount of current insurance policy" (3.41). As Figure 17 shows, 40% of the respondents giving a rating were less than satisfied (that is, "very dissatisfied," "dissatisfied," and "neutral") with the "amount of current insurance policy" while almost half were less than satisfied with the "maximum amount of VMLI you can buy."

Figure 17. Distribution of Satisfaction Scores by Attributes (For VMLI Takers Who Provided Satisfaction Scores)



Source: Q74(a-i) in VMLI Taker Survey

Who is satisfied and who is not?

Table 39 provides mean satisfaction scores by selected veteran characteristics for the VMLI program overall and for the "age 70 policy expiration" feature. The latter feature was chosen because it had the lowest mean satisfaction score of the satisfaction attributes surveyed. We examined these factors to determine the characteristics of those who were more satisfied than others.

On the whole, we found that there was relatively little difference in satisfaction across different veteran groups. In Table 39 we show results for a few characteristics where there appeared to be at least some difference in satisfaction worth noting. In particular, satisfaction scores are lower (both overall and with the "age 70 expiration" feature) for veterans who perceive future needs to increase, took the maximum amount of coverage offered, do not participate in VGLI, and have debts over $50,000. This seems to suggest a need or desire for greater coverage for veterans who are less satisfied than others. While we can point to other comparisons in Table 6, the differences in satisfaction scores appear small.

Table 39. Mean Satisfaction Scores for VMLI Takers by Veteran's Characteristics

Veteran Characteristics		Overall Satisfaction		Age 70 Policy Expiration	
		Mean Satisfaction	Count	Mean Satisfaction	Count
Perceive future needs to increase – Q69	No	3.99	163	3.41	83
	Yes	3.80	126	2.89	61
Took maximum insurance amount offered – Q41	No	4.12	83	3.53	34
	Yes	3.83	229	3.08	118
Has at least some college education or above – Q87	No	3.83	89	3.26	39
	Yes	3.94	223	3.15	113
Has also VGLI – Q2	No	3.80	204	3.10	91
	Yes	4.10	108	3.30	61
Has also SDVI – Q17	No	4.01	174	3.20	70
	Yes	3.78	138	3.16	82
Has also non-VA life insurance – Q52	No	3.94	140	3.32	62
	Yes	3.88	172	3.08	90
Debts over $50,000 – Q51(a-e)	No	4.01	112	3.33	51
	Yes	3.84	171	3.10	88
Don't know/Not sure/ Refused/Not aware of this feature			32		192
Number of Respondents			344		344
Note: Counts for each veteran characteristic may not add up to the total number of respondents because of missing responses.					

Source: VMLI Taker Survey

A more sophisticated statistical technique, regression analysis, was performed to corroborate the results in Table 6. The regression analysis allows us to take into account the simultaneous influences of different veteran characteristics on satisfaction that the simple mean calculation does not. Table 40 indicates higher or lower satisfaction compared to a given veteran group for the two attributes: "VMLI overall satisfaction" and "Age 70 policy termination."

The results are consistent with the previous table. For example, lower satisfaction for both attributes is associated with veterans who perceive their future needs to increase or have debts over $50,000 compared to veterans who do not perceive their future needs to increase or who do not have debts over $50,000. Higher satisfaction is associated with veterans who also have VGLI coverage compared to those who do not. Technical results of the regression analysis are included in Appendix E.

Other characteristics were included in the analysis but found not to have any association with satisfaction. Among those include: having a dependent child, assets over $125,000, marital status, family income over $50,000, race, and having other mortgage insurance.

Table 40. Satisfaction of VMLI Takers with VMLI Program

Factors	Impact
Satisfaction with VMLI Program Overall	
Has also VGLI	Higher satisfaction
Has some college training or above	Higher satisfaction
Took maximum amount offered	Lower satisfaction
Perceive future life insurance needs to increase	Lower satisfaction
Has also SDVI	Lower satisfaction
Total debts over $50,000	Lower satisfaction
Satisfaction with Age 70 Policy Termination	
Has also VGLI	Higher satisfaction
Perceive future life insurance needs to increase	Lower satisfaction
Has non-VA life insurance	Lower satisfaction
Total debts over $50,000	Lower satisfaction

Source: VMLI Taker Survey and Study Team Analysis

Importance of Program Attributes

The next step in the analysis was to identify which attributes contribute most to the customer's overall satisfaction. An analytical technique called Causal Path Modeling[8] (CPM) was used to identify the "key drivers" of overall satisfaction. CPM is one of the latest methods in market research that is used to identify attributes that "drive," or influence overall satisfaction the most. This methodology analyzes the statistical correlation among the different satisfaction variables, between overall satisfaction and

[8] CPM is defined in non-technical terms in Glossary.

particular attributes such as the benefit amount and providing help. Instead of merely taking direct satisfaction responses at "face" value, CPM determines the relative importance of a particular attribute based on the strength of correlation between the attribute and overall satisfaction (compared to the simultaneous correlation between other attributes and overall satisfaction).

Table 41 states the relative importance of the detailed attributes to overall satisfaction in percentage terms. For the sake of comparison, the mean satisfaction scores that were reported already in Table 38 are presented in Table 41. The importance weights are expressed in percentage terms that add up to 100% and are derived from the causal path modeling analysis.

Table 41. Importance of Program Attributes for VMLI Takers

Satisfaction with:	Importance Weights & (Ranking)	Survey Satisfaction Mean Score & (Ranking)
Brochures/written materials	23% (1)	3.93 (3)
Forms for enrolling	20% (2)	4.07 (1)
Premiums	20% (2)	3.95 (2)
Amount of current insurance policy	12% (3)	3.41 (6)
Maximum insurance amount you can buy	12% (3)	3.28 (7)
Age 70 policy expiration	7% (4)	3.18 (8)
VA counseling	4% (5)	3.74 (5)
Helpfulness of VA staff	3% (6)	3.92 (4)
Overall satisfaction	100%	3.91

Source: Question Q74(a-i) in VMLI Taker Survey and Study Team Analysis

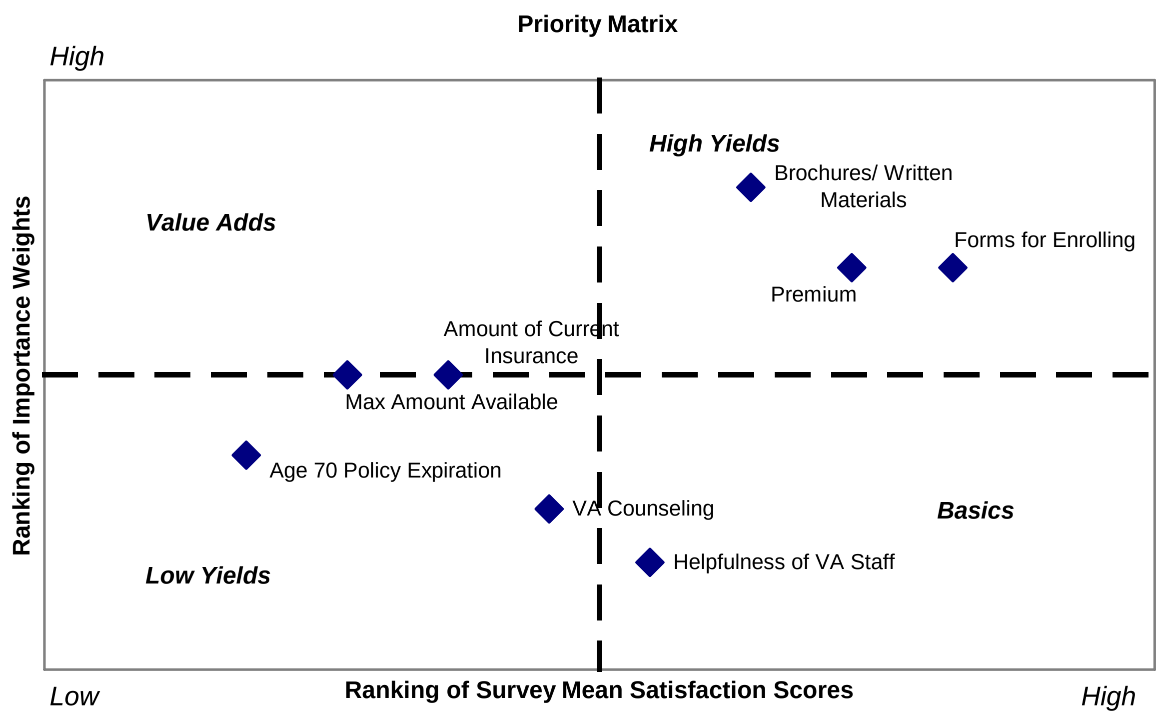
Attributes that contribute significantly to the overall satisfaction rating are "brochures and written materials that explain benefits" (23%) and "forms for enrolling" (20%). The three finance-related attributes, "premium" (19%), "amount" (12%), and "maximum amount" (12%) contribute a significant total of 43% to overall satisfaction. The attributes "helpfulness of VA staff" (3%) and "VA staff counseling" (4%) were the least important. The "age 70 expiration" does not have a high importance weight, but we should point out again that a relatively high percentage of respondents (about 30%) were not familiar with this feature. The lack of responses is likely to have contributed to a lower importance weight for this attribute.

Figure 18 combines the rankings of importance weights and satisfaction scores for each attribute and sorts them into four quadrants of a priority matrix. Each attribute is ranked for both satisfaction and importance. As one moves from left to right on the horizontal axis for satisfaction scores and from bottom to top on the vertical axis for importance weights, the respective ranking increases from low to high. The attributes are sorted into four categories: "Low Yields" (low satisfaction/low importance); "Basics" (high satisfaction/low importance); "Value Adds" (low satisfaction/high importance); and "High Yields" (high satisfaction/high importance). Approximately half of the attributes are low in satisfaction and half are high. Similarly, approximately half the attributes are low in CPM-derived importance and half are high.

The quadrant labeled "High Yields" contains three attributes that rank high in both importance to the customer and the customer's satisfaction score. VA needs to keep the satisfaction results high for these attributes ("forms for enrolling," "brochures," and "premium") in order to maintain a high level of overall satisfaction. The quadrant, "Basics," contains one attribute, "helpfulness of VA staff," which has a high satisfaction score but is relatively less important to the customer than other program attributes.

The quadrant labeled "Value Adds" (low satisfaction/high importance) offers the highest yield potential for improvement in overall satisfaction. In particular, the attributes "amount of insurance" and "maximum coverage amount you can buy" have a relatively low satisfaction score but are viewed as more important to the customer than other attributes. While the "age 70 policy expiration" feature is in the "Low Yield" quadrant, it is close behind the "maximum amount you can buy" attribute in terms of relative importance. In fact, the three attributes "amount of insurance," "maximum amount available," and "age 70 policy expiration" are finance-related features that contribute significantly to overall satisfaction, yet they have relatively lower satisfaction scores. Policy intervention in these areas would yield the greatest increase in improvement in customer satisfaction compared to intervention for the other attributes.

Figure 18. Rankings of Importance Weights and Mean Satisfaction Scores for VMLI Takers



Note that the points in the chart are plotted on the basis of rankings, not the actual values of the weights or satisfaction scores.
Source: VMLI Taker Survey and Study Team Analysis

7. FINDINGS

Meeting Program Intent

As discussed in Section 2, the study team reviewed the legislative history of the programs and developed a recommended set of outcome measures based on this review and VA's own draft measures. Section 2 lists the recommended outcomes, goals, and measures for each program, which we applied in conducting the study.

Key outcomes intended by Congress for the VMLI program are availability and affordability of mortgage life insurance for severely disabled veterans. We examined these outcomes in terms of insurance coverage, policy features, and premium cost for the VMLI participant and compared these measures against respective measures in the private sector for healthy individuals. The legislative history indicates that the maximum coverage amounts should reflect prevailing home prices. Also, premiums paid by the veteran should be consistent with those for commercial products purchased by healthy individuals.

Table 42 presents the highlights of study results that relate to the outcomes and goals listed in Section 2. Overall, we found that Congressional intent is largely being met, but not entirely. In particular, when the program started in 1971 it covered about 96% of the mortgage amounts of VMLI whereas today it covers about 75%. This has largely occurred because home prices steadily increase while adjustments in the maximum amount of insurance coverage are made only infrequently. The legislative history indicates that the maximum coverage amounts should reflect prevailing home prices. We have identified certain sources of information that can be used to keep track of the increases in home prices (see Section 8, Recommendations).

Half of the VMLI takers had about $95,000 or more in life insurance from <u>all</u> sources whereas half of eligible VMLI non-takers had only $10,000 or more (conversely, half had less than $10,000). Hence, participation in VMLI has a pronounced effect on increasing the total amount of life insurance for the veteran eligible for VMLI.

We found that the VMLI participant pays a premium cost that is significantly lower than the typical costs for a healthy individual in the private sector.

Another category of key program outcome is the overall value of the program as perceived by the program participant. One measure that reflects this outcome is the participation rate of veterans who are potentially eligible for the program. VA Philadelphia Insurance Center reports a participation rate of 65%, which we would judge to be reflective of high value to the participant. The actual participation rate for eligible veterans is higher than this as it includes severely disabled veterans who received a VA Specially Adapted Housing grant but may not have a mortgage or are over the age of 70. Also, 13% of non-participants in our survey indicated that they were not aware of the program.

Another important measure of value of the program to the customer is the customer satisfaction rating. Over 70% of program participants were "very satisfied" or "satisfied" with the program. We would judge this result to reflect, on the whole, high value to the customer, but there is room for improvement. In particular, only about half are satisfied with the maximum insurance amount and about half are satisfied with the age 70 policy termination feature. About half of the program participants in the survey indicated that they would increase their insurance amount if given the opportunity.

Table 42. Program Outcomes, Goals, and Results

Program and Group Served	Outcomes	Goals	Results
VMLI Program: Severely disabled veterans with service-connected disabilities who have received a grant for specially adapted housing.	Severely disabled veterans of any age and with service-connected disabilities can purchase mortgage life insurance in amounts consistent with current mortgage loans, and at standard premium rates.	Parity with the average non-disabled American's ability to purchase mortgage life insurance protection at any age in amounts consistent with current limits on mortgage loans and at competitive rates and with comparable policy features.	The $90,000 maximum mortgage protection life insurance under VMLI covers about 75% of the face value of mortgages of VMLI participants, in contrast to 96% when VMLI first started. VMLI premium rates are significantly lower than in the private sector for healthy individuals.

Study findings are listed in greater detail in the following:

Profile of VMLI Takers and Non-takers

- A typical VMLI taker and non-taker have the following characteristics in common: white, married, with dependents, and live with dependents.
- VMLI takers tend to be more severely disabled and more restricted by their disabilities.
- Median annual household income range for both VMLI takers and non-takers is $70,001-$80,000.
- Data received from IRS indicates that VMLI non-takers, on average, have higher individual taxable income than their VMLI taker counterparts ($26,768 vs. $14,041, respectively)
- VMLI non-takers, on average, are older than current VMLI takers (61 vs. 51, respectively). This difference is not surprising since current VMLI takers have to be under the age of 70 due to the age limitation. It is feasible that VMLI non-takers were over the age of 70 at the time the survey was conducted
- VMLI non-takers, on average, have larger number of years with a service-connected disability than VMLI takers (33 vs. 23, respectively)

- Although the majority (50-55%) of both takers and non-takers live with dependents, a significantly larger percentage of VMLI takers (28%) have a dependent child compared to non-takers (18%).

Participation

- The participation rate of veterans eligible for VMLI is 65% or higher.

Coverage

- Half of the VMLI participant survey respondents indicated that they would increase their VMLI amount if they were given a chance. Among those who indicated that they would increase their coverage if they were given a choice, 38% indicated they would take a policy amount up to $150,000, while 43% of respondents indicated they would increase their policy to an amount over $150,000. (19% of the respondents did not provide any amount, although they indicated that they would increase their policy amount.)
- Our survey of a sample of individual life insurance companies revealed that one of the seven plans does not have a maximum termination age. That is, the coverage continues until the insured dies or pays the mortgage balance. For five of the remaining plans, the maximum issue age (the maximum age at which an individual can be issued coverage) ranged from age 50 to age 80. Thus, individuals as old as age 80 were able to purchase mortgage life insurance.
- Increasing life expectancy results in more disabled veterans outliving the current age 70 termination point for VMLI. This means that increasing numbers of survivors of disabled veterans could be left with unpaid mortgages.
- VMLI takers indicated that they also have VGLI (34%) and SDVI (45%) compared to 28% and 34% for VMLI non-takers, respectively.
- More than half (55%) of VMLI takers and nearly two-thirds of VMLI non-takers (63%) have at least one other non-VA life insurance program (that is, SDVI and/or VGLI).
- Total average amount of life insurance among all survey respondents, including VMLI, other VA life insurance, and non-VA life insurance, is much higher for the VMLI takers ($116,131) than for the VMLI non-takers ($53,431). Participation in VMLI greatly increases the total amount of life insurance for the veteran who is eligible for VMLI.
- A larger percentage of VMLI takers (40%) think they will need more life insurance 10 years from now than VMLI non-takers (23%). However, of those respondents who indicated that they anticipated needing more life insurance 10 years from now, only 40% of VMLI takers, and 23% of non-takers said they would purchase additional insurance 10 years from now, as reported in Table 34.

Premium Cost

- VMLI premium rates are significantly lower than in the private sector for healthy individuals.
- More than two-thirds (69%) of the VMLI participants think that the amount they pay for premiums is reasonable. Also, almost two-thirds (64%) of the VMLI participants indicated that if they were to get the same type of insurance from a private insurance company, they believe they would have to pay more than the amount they pay for the VMLI premiums.

Reasons for Participation and Non-Participation

- 40% of the survey respondents indicated that covering funeral expenses was the main reason for participating in the VMLI program. Although payments are made directly to the mortgage company upon veteran's death, VMLI takers may feel that having VMLI indirectly helps cover their funeral expenses. About one out of five survey respondents (21%) indicated that the price of the premium was one of the main reasons for program participation. Other reasons with a high response rate included: unqualified for private sector alternatives due to disability (15%), responsibility to family (15%), and convenience (10%).
- Thirteen percent of the VMLI non-takers indicated they were not aware of the program, while 15% did not remember receiving a Specially Adapted Housing (SAH) grant. It is very likely that the non-participants may have forgotten about the availability of the VMLI program and their eligibility in the program.
- Out of the 13% who indicated they were not aware of the program, one out of three (32%) said they would take VMLI if they had a chance to take it today.

Satisfaction of Participants

- Over 70% of VMLI participants indicated that they were either satisfied or very satisfied with the VMLI program overall, whereas only 9% responded as either dissatisfied or very dissatisfied. The high satisfaction rating for the program overall can be because of the uniqueness of the VMLI program as a benefit for catastrophically disabled veterans. In the private sector, mortgage insurance is seldom an employer-provided benefit. Most VMLI participants would be unable to purchase commercial mortgage insurance at any price because of their disabilities.
- Age 70 policy expiration" and "maximum amount of coverage available" are the two features that the VMLI participants are the least satisfied with.
- Satisfaction scores are lower for veterans who perceive their future insurance needs to increase (compared to those who do not), took the maximum amount of coverage offered (compared to those who did not), or did not participate in VGLI (compared to those who did).
- Policy change in the age 70 expiration feature and maximum VMLI coverage would yield a significant increase in customer satisfaction.

- One out of three VMLI taker survey respondents indicated that they were not aware of the “age 70 policy expiration” feature.

8. RECOMMENDATIONS

Policy Recommendations

Our review of the background on VMLI and analysis of survey data indicate two features of the program that could be modified to improve its ability to meet its desired outcomes and goal.

First, the termination of coverage at age 70 means that between approximately 30 to 50 enrollees are dropped annually from coverage while they still have unpaid mortgages. The number varies by year according to the demographics of the covered population.

Second, the maximum coverage limit is inadequate and there is no automatic means to increase the limit as housing costs and mortgage amounts increase. The current maximum coverage limit was last increased in December 1992, when it was raised from $40,000 to $90,000. The increase was applied to all existing enrollments at the time; many disabled veterans received a significant increase in the amount of their VMLI coverage. With the increase, the VMLI program then covered 91 percent of the total mortgage balances of enrollees. Because there are no provisions for automatic indexing of this limit, each year a smaller percentage of the mortgages of new program participants is covered by the program. Currently, the $90,000 limit covers approximately 75 percent of the face value of mortgages held by VMLI participants.

Consequently, the Study Team recommends that VA consider the following legislative improvements to VMLI:

1. **Remove the provision terminating VMLI coverage at age 70.**
2. **Increase the current coverage maximum for current participants from $90,000 to between $150,000 and $200,000.**
3. **Index the coverage maximum based on the annual increase in new loan origination amounts as reported annually by the Federal Financial Institutions Examination Council (FFIEC).**
4. **Examine methods to increase participation by eligible disabled veterans.** More frequent follow-ups with housing grant recipients, perhaps with personal telephone contact with the veteran or the veteran's spouse would encourage more widespread use of this important benefit. Since VMLI non-takers are eligible for VMLI even years after receiving the SAH grant, they may be interested in participating in VMLI now.

Technical Recommendations

The Study Team's overall technical recommendations are:

5. **VA should implement an ongoing review of the outcomes of DIC and the insurance programs.**

6. **VA should implement efforts to integrate VA electronic files that are currently separate across the different programs.**

For the ongoing review, we recommend that the outcome measures be structured more around the group of veterans being served rather than focusing primarily on the different programs. In particular, we would organize outcome measurement according to these customer groups:

- Active duty servicemembers
- Disabled insurance takers
- Non-disabled insurance takers (who are not active duty members)
- Beneficiaries of disabled veterans
- Beneficiaries of non-disabled servicemembers and veterans

The reason for this approach is that it is more congruent with measuring outcomes that focus on the *customer* and *One VA* core value (as cited in VA's overall Strategic Plan FY 2001-2006). In addition, many insurance-takers and beneficiaries are participants in multiple programs, and they have difficulty in distinguishing one program from another. They tend to view the value of the different programs collectively rather than separately from each other. Measures that distinguish one program from another could still be applied, but at more detailed levels of outcome measurement rather than at the highest level of aggregation.

The ongoing evaluation effort should focus on the major outcomes that were recommended and investigated in this study, including:

- Available and affordable insurance
- Maintenance of a minimally acceptable level of income
- Replacement of lost income after veteran's death
- Value of the programs as perceived by program participants.

For available and affordable insurance, comparison to the private sector or other non-VA sources on coverage and premium costs should be made at least once a year. The particular comparisons reported in this study could serve as a basis on ongoing assessment. For acceptable level of income and replacement of lost income, measures similar to the ones used in this study should also be applied. For the customer's perception of overall value, we recommend that VA administer a shorter version of the study's survey that focuses on customer satisfaction and selected other questions that address customer expectations.

Certain methodological issues should be addressed. One is to establish relative importance for different outcomes and measures. Establishing weights allows the managers to obtain an overall summary of outcome and to consider trade-offs between different outcome criteria. Sensitivity analysis can be performed to assess the impact of different management intervention strategies on overall outcome.

For integration of VA administrative electronic files, the ongoing evaluation could be accomplished more readily if there were an unduplicated population of veterans and their survivors that included data about the veteran and survivor and all VA benefits received. At present, these programs are administered separately, and their electronic administrative records are not readily linkable, as discussed in Section 1.

Recommendations for ongoing evaluation are discussed in greater detail in Appendix J, *Methodological Considerations for Outcome Measures for DIC and Insurance Programs*. This paper also provides estimates of the cost to implement the recommendations for outcome measures of the different VA insurance programs.

Estimated Costs of Recommendations

Table 43 presents costs estimates for the recommendations listed above. Further analysis or detail can be found in Section 4.

Table 43. Cost Estimates for Recommendations

Recommendations	Cost to VA	Period
VMLI		
1. Remove the provision terminating coverage at age 70	$400,000 in 2002 $566,000 in 2010	Annual
2. Increase the current coverage maximum for current participants from $90,000 to between $150,000 and $200,000	2% Mortgage Growth $150,000 / $200,000 2002 $1.19 million $1.40 million 2010 $1.75 million $2.27 million 6% Mortgage Growth $150,000 / $200,000 2002 $1.20 million $1.42 million 2010 $1.92 million $2.70 million	Annual
3. Index the coverage maximum based on the annual increase in new loan origination amounts as reported annually by the Federal Financial Institutions Examination Council (FFIEC)	2% Mortgage Growth $150,000 / 200,000 2002 $1.19 million $1.40 million 2010 $1.84 million $2.32 million 6% Mortgage Growth $150,000 / $200,000 2002 $1.20 million $1.42 million 2010 $2.36 million $3.00 million	Annual
4. Examine methods to increase participation by eligible disabled veterans	$35,000 for study.	One-time
Technical Recommendations		
6. Implement an ongoing review of the outcomes of DIC and the insurance programs	$235,000 - $335,000	Annual
7. Implement efforts to integrate VA electronic files that are currently separate across the different programs	Further study needed to provide accurate estimate. Costs could be substantial, exceeding $500,000.	One-time

Source: Study Team Calculations, Insurance Takers and Survivor Surveys and VA Administrative Electronic Files

GLOSSARY

A&A – see Aid and Attendance

Accidental Death and Dismemberment (AD&D) is insurance providing payment only if the insured's death results from an accident or if the insured accidentally severs a limb above the wrist or ankle joints or totally and irreversibly loses his or her eyesight.

Activities of Daily Living (ADL). Typical types of ADLs include:

- Bathing, grooming, using the toilet, dressing
- Taking medication
- Assisting with walking and/or transferring
- Exercising, range of motion
- Planning and preparing meals
- Laundry and light housekeeping
- Supervision and companionship
- Running errands, such as to the grocery store and to doctor appointments

AD&D – see Accidental Death and Dismemberment

ADL – see Activities of Daily Living

Aid and Attendance (A&A) is an additional allowance payable to a beneficiary who is a patient in a nursing home or is so disabled as to require the aid and attendance of another person.

Automatic Enrollment/Coverage is insurance coverage that is automatic until, and unless, it is declined by the individual. *SGLI* uses this automatic enrollment feature.

Beneficiary of Insurance is a person to whom the proceeds of a life insurance policy are payable when the insured dies.

Bureau of Labor Statistics

BLS – see Bureau of Labor Statistics, U.S. Department of Labor.

C&P – see Compensation and Pension Service

Causal Path Analysis is also called Structural Equation Modeling. It is used to identify the causal relationships between variables. It basically consists of several multiple regression equations. Different from a multiple regression, one needs to estimate all regression equations simultaneously in a Causal Path Analysis and a variable in a Causal Path model can be a dependent variable in one equation and an independent variable in another equation. In addition, Causal Path Analysis can include two kinds of variables: observed and latent. Observed variables have data like gender or height. Latent variables are not directly observable, but are constructed based on the correlations of the observed variables. For example, there is a high correlation of individual test scores between English and History. This may be attributable to an unobservable variable called “verbal aptitude.” Causal Path Analysis, by effectively reducing the number of observed variables via the construction of fewer unobservable variables, effectively reduces the level of multicollinearity and yields more precise results.

CES – see Consumer Expenditure Survey

Chi Square is often used to assess the "goodness of fit" between an obtained set of frequencies in a random sample and what is expected under a given statistical hypothesis. For example, Chi Square can be used to determine if there is reason to reject the statistical hypothesis that the frequencies in a random sample are as expected when the items are from a normal distribution. A calculated value of Chi Square compares the frequencies of various kinds (or categories) of items in a random sample to the frequencies that are expected if the population frequencies are as hypothesized by the investigator.

Civil Service Retirement System (CSRS) originated in 1920 and has provided retirement, disability, and survivor benefits for most civilian employees in the Federal government. The system was originally administered by the Department of the Interior until 1930 when it moved to the new Veterans Administration. But in 1934, it found a home with the Civil Service Commission and in 1979 with the Office of Personnel Management. Benefits have continued to evolve to the present time. They are now financed by both employee and Government contributions to the retirement fund, and provide benefits based on length of service and the average salary over the highest three years of pay. This continuing need to modernize benefits resulted in the creation of a new Federal Employees Retirement System (FERS) to replace CSRS in 1987. However, there are still many civilian Federal employees covered by CSRS, and over 2 million people continue receiving CSRS retirement and survivor benefits each month.

Compensation and Pension Service (C&P) is the VA organization responsible for administering VA monetary benefit programs for disability and death.

Consumer Expenditure Survey (CES). A program conducted by the Bureau of Labor Statistics (BLS) consists of two surveys—the quarterly Interview survey and the Diary survey—that provide information on the buying habits of American consumers, including data on their expenditures, income, and consumer unit (families and single consumers) characteristics. The Interview survey includes monthly out-of-pocket expenditures such as housing, apparel, transportation, health care, insurance, and entertainment. The Diary survey includes weekly expenditures of frequently purchased items such as food and beverages, tobacco, personal care products, and nonprescription drugs and supplies.

Consumer Price Index (CPI). A measure of the average changes over time in the prices paid by urban consumers for a market basket of consumer goods and services. CPI is computed by Bureau of Labor Statistics (BLS).

Conversion Option/feature/privilege allows the policy-owner, before an original insurance policy expires, to elect to have a new policy issued that will continue the insurance coverage.

Correlation. A measure used to tell the strength of a linear relationship between two variables.

CPI – see Consumer Price Index

CPS – see Current Population Survey

CSRS – see Civil Service Retirement System

Current Population Survey (CPS) is a monthly survey conducted by the U.S. Census Bureau for the Bureau of Labor Statistics of U.S. civilian, non-institutionalized population.

Debt is an amount of money, a service, or an item of property that is owed to somebody. For study purposes the following items are included in debt: home mortgage, consumer loans, car loans, credit cards, and "other" debts that respondents reported.

Department of Defense (DoD). United States Department of Defense (Army, Navy, and Air Force).

Department of Veterans Affairs (VA). United States Department of Veterans Affairs.

Dependency and Indemnity Compensation (DIC) is the VA program that provides monthly payments to surviving spouses and dependent children of veterans who died in service or as a result of a service-related disability.

Dependent Variable is the outcome that we are trying to explain in a regression analysis. Any change in the dependent variable is viewed as a function of changes in the independent variable(s).

DIC – see Dependency and Indemnity Compensation

Disability Waiver. See "waiver of premiums."

DoD – see Department of Defense

Dummy Variables are used in regression analysis to modify the form of non-numeric variables, for example sex or marital status, to allow their effects to be included in the regression model.

ECI – see Employment Cost Index

Employment Cost Index (ECI) is a measure of the change in the cost of labor, free from the influence of employment shifts among occupations and industries. The compensation series includes changes in wages and salaries and employer costs for employee benefits. The wage and salary series and the benefit cost series provide the change for the two components of compensation. ECI is conducted by Bureau of Labor Statistics (BLS).

Face Amount is the amount that will be paid on the insurance policy at the time of the insured's death or when the policy matures.

Factor Analysis is a data reduction and summarization technique used to analyzing the interrelationships among many variables and capturing their common underlying dimensions (factors).

Federal Employees Retirement System (FERS) became effective in 1987, and almost all new Federal civilian employees hired after 1983 are automatically covered by this new retirement system. FERS is a response to the changing times and Federal workforce needs. Many of its features are "portable" so that employees who leave Federal employment may still qualify for the benefits. The new retirement system is flexible. Covered employees are able to choose what is best for their individual situation.

Federal Employees' Group Life Insurance (FEGLI) is a group insurance program offered to federal civilian employees.

FEGLI – see Federal Employees' Group Life Insurance

FERS – see Federal Employees Retirement System

Group Life Insurance is a life insurance that a person is eligible to purchase through membership in a group. The group may not be formed just to buy insurance.

Group Setting. Nursing home, assisted living, dormitory**.**

Helpless Child is a dependent child of a veteran who is determined to have become permanently incapable of self-support prior to age 18. There is no age limit for payment of VA benefits to helpless children.

Housebound is an additional allowance payable to a beneficiary who is so disabled as to be permanently confined to the home or immediate premises.

Indemnity is security against loss or damage.

Independent Variable is the factor that is used as a predictor in a regression analysis. The independent variable is conceptualized as accounting for changes in the dependent variable.

Insurance Coverage is the amount or type of protection provided by an insurance policy.

Insurance Service is the organization within VA that manages the VA life insurance programs. It is located at the VA Regional Office and Insurance Center, 5000 Wissahickon Ave., Philadelphia, PA 19101.

Internal Revenue Service (IRS) is a U.S. government organization within the Department of Treasury. IRS provided some data about the population and samples for this study.

IRS – see Internal Revenue Service

Logistic Regression is similar to a regression model but is suited to models where the dependent variable is dichotomous (that is, it can take only two values – 0 for non-participants and 1 for participants).

In multiple regression models, the interpretation of the regression coefficient is straightforward – the amount of change in the dependent variable for a one-unit change in the independent variable. When logistic regression is used, the interpretation of the estimated coefficients is different. The logistic model can be specified in terms of the "odds" of an event occurring. For example, the odds of being an insurance taker are defined as the ratio of probability that it will occur to the probability that it will not. The estimated coefficients are the odds of an event occurring, expressed in logarithmic value, and may not provide a straightforward interpretation.

Mean. Also called the "average." Obtained by adding item scores and dividing by the total number of items.

Median. The middle value in a group of sequential data. If you ranked 99 scores, the fiftieth score would be the median. It has forty-nine scores larger and forty-nine scores smaller. Sometimes use of the mean alone may be misleading. For example, mean income of a small community will be inflated by the presence of a few millionaires. However, the median (middle) income will be a more accurate reflection of the overall community's true income level.

Mortgage Insurance. The benefits of this type of term life insurance policy are intended to pay off the balance due on a mortgage after the death of the insured and is paid to the mortgage lender. Its face amount decreases with the outstanding balance of the mortgage loan.

Multivariate Analysis uses more than one variable to forecast, predict, or understand a situation. For instance, if economists want to predict the likelihood of a recession, they might look at consumer spending. But spending is only one variable of many that affects the economy. To get a more accurate picture, a wide range of factors must be considered from financial variables to human behavior and psychology. Multivariate analysis gathers and assembles all possible information on numerous variables to make predictions, answer questions and test hypotheses.

Net Worth is defined as total assets minus total debts. Total assets include: home, non-retirement investments, retirement savings (401k, IRA, KEOGH,), cars, and other assets. Total debts include: home mortgage, consumer/education loans, car loans, credit card debts, and any other debts.

Non-taker is an individual who elects not to participate in the insurance program.

Non-user is an individual who elects not to participate in a benefit program.

Office of Servicemembers' Group Life Insurance (OSGLI) is a division of the Prudential Insurance Company, which has contracted with VA to handle the day-to-day administration of the SGLI and VGLI programs.

OSGLI – see Office of Servicemembers' Group Life Insurance

Outcomes are the results or impacts on the target group or issue of a government action, policy, or program.

Outcome measures are the yardsticks to compare results of actual program results to the intended results. Outcome measures are expressed in a quantifiable form and indicate the degree to which the program is achieving its outcomes. An outcome measure shows the change or difference the program has on the particular target group or issue area indicated.

Outliers are extreme data points. They can greatly affect some statistical measures and have negligible effects on others. The measures which are most affected by outliers are the variance, standard deviation, and weighted mean. A few outliers will have negligible effects on medians and percentiles. Usually, extreme data points represent errors in data reporting which arise from miscoding or misinterpretation of data entry instructions. In such cases, these outliers should be eliminated, so that they will not distort the measurements.

Poverty is the state of not having enough money to take care of basic needs such as food, clothing, and housing. The Department of Health and Human Services has poverty guidelines for different household sizes. For the year 2000, the poverty threshold for a household of 1 is $8,350. Each additional person increases the poverty threshold by $2,900. For the year 1999, the poverty threshold for a household of 1 was $8,240. Each additional person in the 1999 household increased the poverty threshold by $2,820.

Premiums are periodic payments made to keep a policy in force.

Regression is used to characterize the manner in which one measure changes as the other measure changes. For any set of related measures, it is possible to specify a line that approximates the mean of the Y measures for those items with a given X measure. By revealing how the mean of the Y measures changes as the various X measures change, this line is understood to describe the regression of Y on X.

R^2 shows the proportion of variance accounted for in the dependent variable by considering changes in the independent variable(s). This value is expressed as a percentage, and the higher the value, the better the level of prediction in a regression equation. In a multiple regression analysis, partial R^2 describes the proportion of variance in the dependent variable accounted for by one independent variable. The model R^2 describes the proportion of variance in the dependent variable accounted for by all the independent variables that have entered the regression model or equation up to that point.

RH Insurance. "RH" is the prefix used for Service Disabled Veterans Insurance policies. See "Service Disabled Veterans Insurance."

SAH – see Specially Adapted Housing

Sample Weight is a numerical value, assigned to a sample unit for use in estimation. It is equal to the sampling rate reciprocal.

Sampling Error is the measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. In other words, that part of the error of an estimate which is related to the estimate being based on a sample rather than from a census of the universe.

SDVI – see Service-Disabled Veterans Insurance

Service-connected (or Service-related). A disability or death is considered service connected if it was incurred or aggravated during active military service. Service connection entitles veterans or survivors to certain VA benefits including DIC, SDVI, and others.

Service-Disabled Veterans Insurance (SDVI) is a VA life insurance program that provides life insurance to veterans with service-connected disabilities. The veteran must have been separated from service on or after April 25, 1951 and must be in good health except for the service-connected conditions. SDVI is also known as RH insurance.

Servicemembers' Group Life Insurance (SGLI) is a VA supervised program that provides group life insurance protection to active duty servicemembers and ready reservists and certain members of the Individual Ready Reserves.

Significance Level (Level of Statistical Significance). The result of a statistical test does not guarantee that any changes accounted for in the dependent variable will reflect the "truth." A certain amount of error is always present and results must be interpreted in light of the potential error (or noise) in the measurements. Thus, a level of statistical significance is adopted for any statistical test. This level is a probabilistic statement about the likelihood of the results of the test occurring by chance alone. The commonly accepted level is 5%, which is denoted as $p < .05$. By this criterion, any result which has a probability of occurring by chance that is lower than 5% (0.05) is accepted as an accurate finding.

SIPP – see Survey of Income and Program Participation

SGLI – see Servicemembers' Group Life Insurance

SMC – see Special Monthly Compensation

Social Security Administration (SSA) is the Government agency that provides disability, retirement, and survivors' protection. SSA began life as the Social Security Board (SSB) by President Roosevelt in 1935. SSB was renamed the Social Security Administration in 1946. SSA and VA often serve the same people at the same time. To prevent mispayment (under payment as well as overpayment), VA works closely with SSA.

Special Monthly Compensation (SMC) is a rate paid in addition to or in place of 0% to 100% combined degree compensation. To qualify, a veteran must be disabled beyond a combined degree percentage or due to special circumstances (for example, aid and attendance, loss of use of one hand, and the like).

Specially Adapted Housing (SAH) is a lump-sum monetary allowance payable toward the construction or remodeling of a residence to accommodate the special housing needs of a veteran who is catastrophically disabled by service-connected disability.

For the purposes of 38 USC 2101, a specially adapted house is a family dwelling or unit, together with the necessary land, that has been specially designed to overcome the physical limitations of the individual beneficiary.

SSA – see Social Security Administration

Survey of Income and Program Participation (SIPP) is a longitudinal survey with monthly interviewing of persons age 15 and over in households of U.S. civilian, non-institutionalized population.

Standard Deviation is one of several indices of variability that statisticians use to characterize the dispersion among the measures in a given population. To calculate the standard deviation of a population it is first necessary to calculate that population's variance. Numerically, the standard deviation is the square root of the variance. Unlike the variance, which is a somewhat abstract measure of variability, the standard deviation can be readily conceptualized as a distance along the scale of measurement.

Standard Error, or Standard Error of the Mean, is an estimate of the standard deviation of the sampling distribution of means based on the data from one or more random samples.

Stratification involves sorting the population into subgroups and then systematically selecting from these groups, ensuring that their representation in the sample was proportional to their relative sizes. Alternatively, you could randomly select a proportional number of participants from each subgroup.

Supplemental Insurance/Coverage is additional insurance coverage that is sometimes made available through an employer to individuals who are already covered by basic life insurance offered by the company.

Taker. A person who elects to participate in a VA insurance program.

Term Insurance is insurance protection intended for a limited time period. This insurance normally does not accumulate a cash value. It remains in force for a specified period of time after which it is subject to renewal or termination.

Underwriting is the process of evaluating a risk for the purpose of issuing insurance coverage on it.

User. A person who elects to participate in a VA benefits program.

VA – see Department of Veterans Affairs.

Variance is a descriptive statistic indicating how the numbers in a distribution are clustered around the mean. If the numbers are relatively close to one another, the distribution will have a low variance. If the numbers are very different from one another, the distribution will have a high variance. The variance in a distribution reflects both systematic differences (due to the influence of independent variables) and error variance (or "noise").

VBA – see Veterans Benefits Administration.

Veterans Benefits Administration (VBA) is one of three Administrative agencies of the Department of Veterans Affairs (with the Veterans Health Administration and the National Cemetery Administration). VBA is responsible for administering all VA benefits programs.

Veterans' Group Life Insurance (VGLI) is a VA supervised program of post separation group term life insurance. SGLI can be converted to VGLI after separation while the SGLI policy is still in force.

Veterans' Mortgage Life Insurance (VMLI) is a VA program that provides mortgage life insurance to catastrophically disabled veterans at standard (healthy) premium rates.

VGLI – see Veterans' Group Life Insurance

VMLI – see Veterans' Mortgage Life Insurance

Waiver of Premium is a rider or provision included in some life insurance policies exempting the insured from paying premiums after he or she has been disabled for a specified period of time, usually six months.

War or Aviation Clause is a clause in a commercial insurance policy that prohibits payment in the event that the policyholder is killed as the result of an act of war or in an aviation accident.

Whole Life, Permanent, or Cash Value Insurance is a life insurance policy intended to provide lifetime protection. Premiums for these types of policies generally do not increase periodically as term insurance premiums do. Permanent plan policies have cash and loan values while term insurance does not.

Welfare is the physical, social, and financial conditions under which somebody may live satisfactorily.

Working. The study definition of working is any survey respondent who reported income from earnings and/or self employment.